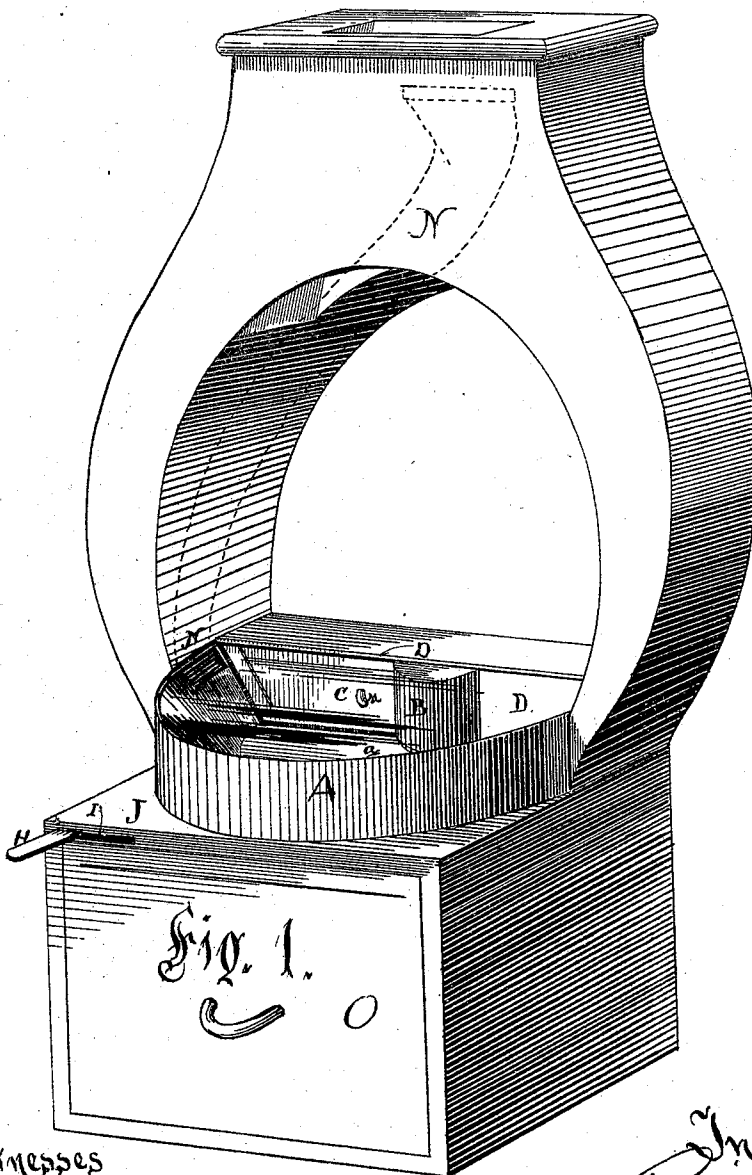


3 Sheets- Sheet 1.

R. D. O. SMITH.
Fare-Boxes.

No. 140,959.

Patented July 15, 1873.



Witnesses
A. V. Smith
A. B. Meichner

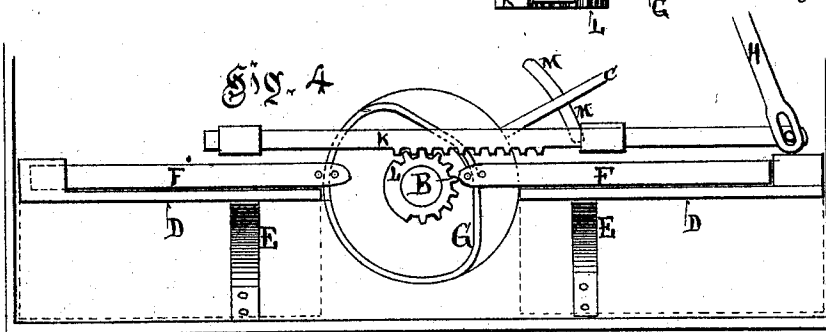
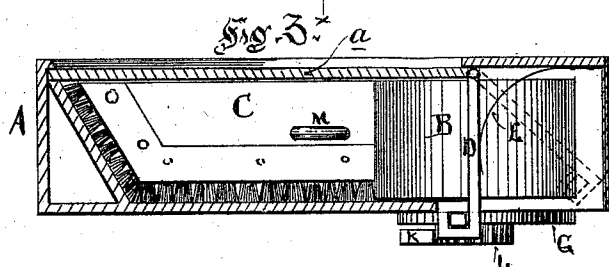
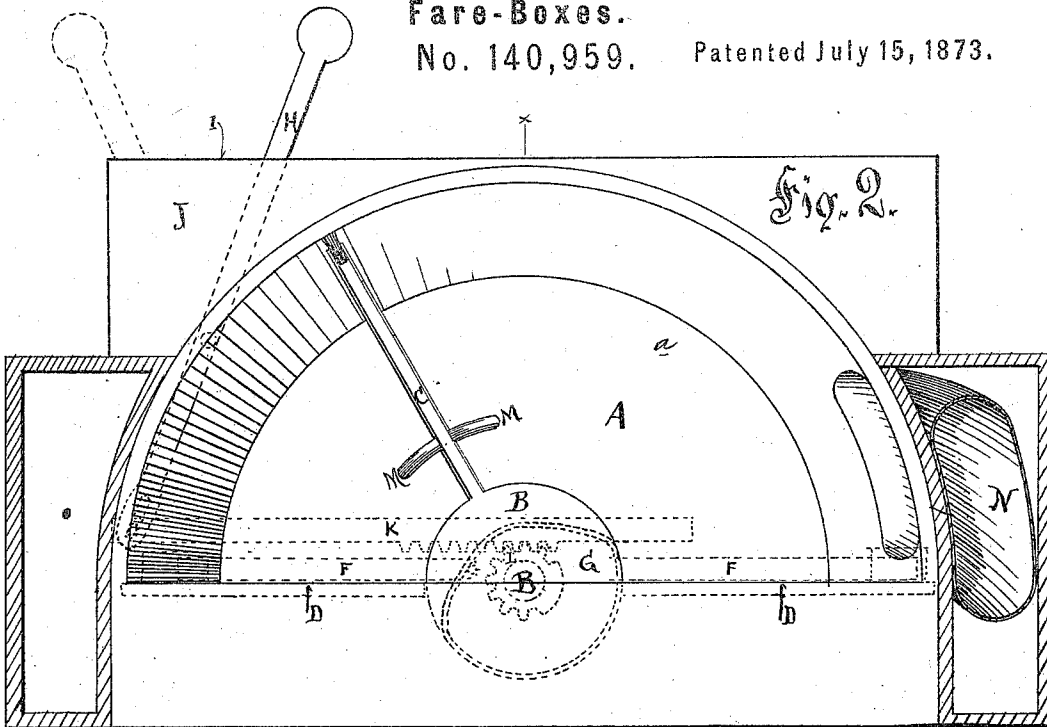
Inventor
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Witnesses

N. V. Smith
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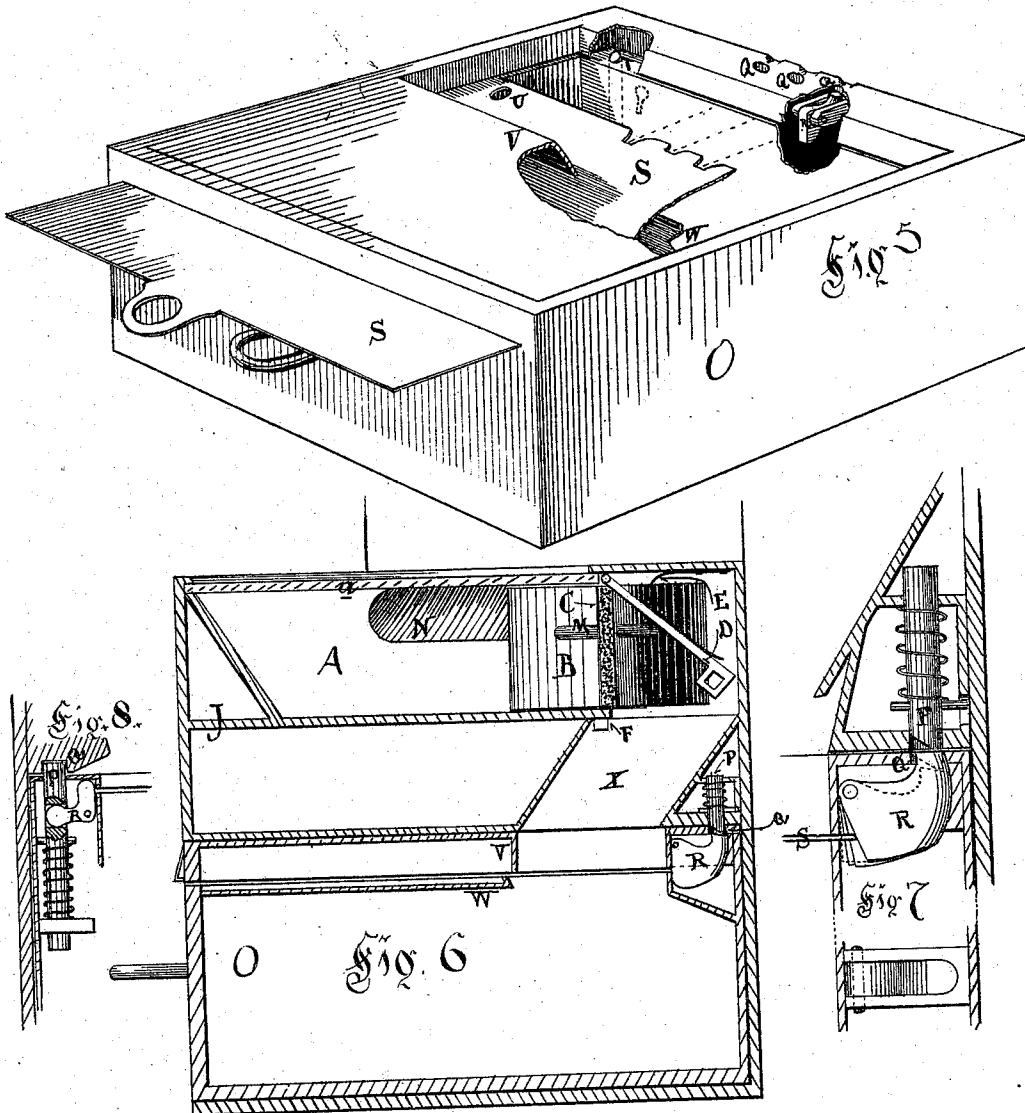
Robert D. O. Smith

3 Sheets--Sheet 3.

R. D. O. SMITH.
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Inventor
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UNITED STATES PATENT OFFICE.

ROBERT D. O. SMITH, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO JOHN B. SLAWSON, OF NEW YORK CITY.

IMPROVEMENT IN FARE-BOXES.

Specification forming part of Letters Patent No. **140,959**, dated July 15, 1873; application filed
September 28, 1872.

To all whom it may concern:

Be it known that I, R. D. O. SMITH, of Washington, in the county of Washington and District of Columbia, have invented a new and useful Improvement in Fare-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my fare-box. Fig. 2 is a plan of the inspection-chamber. Fig. 3 is a transverse section of Fig. 2 on line *x x*. Fig. 4 is a bottom plan of the inspection-chamber, showing the operative mechanism of the same. Fig. 5 is a perspective view of the money drawer or safe detached. Fig. 6 is a longitudinal vertical section through the inspection-chamber and money drawer or safe. Fig. 7 is an enlarged figure of the devices for locking the drawer in the case. Fig. 8 represents a modified construction whereby the locking-bolts are placed in the rear end of the drawer.

My invention relates to that class of fare-boxes which are fixed to the wall from a street-car or omnibus to receive the fares from the passengers without the intervention of conductors or other attendants. The first part thereof has reference to the inspection-chamber, wherein the fares are temporarily arrested for inspection before being consigned to the safe-chamber or locked drawer; and it consists in a chamber provided with a top or cover composed of some transparent substance, or device through which both passenger and attendant may look from opposite sides and see the fare which has been deposited, and a reciprocating or vibrating partition or wiper to remove said fare after inspection, and sweep it into an opening or passage-way leading to the safe, said opening or passage-way being covered by a door automatically unlocked at the moment when fares are to be passed through it.

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

A is the inspection-chamber, in which the fares are temporarily detained for inspection before being transferred to the locked safe.

I prefer to make the chamber A in form half the frustum of a cone, inverted, the smaller section being below. This constitutes a chamber with horizontal bottom and top, and an outwardly-flaring or inclined side around its semicircular part, so that the eye may look obliquely upon the transparent cover *a* and still see the entire bottom of said chamber. At the curvilinear center of the chamber A there is an upright shaft, B, capable of rotation, and a projecting partition, C, is attached thereto. Said partition extends from the shaft B to the opposite inclined side of the chamber A and along the bottom of the same, so that, when the shaft B is rotated, said partition is moved along from one part of the curved chamber to another, and will sweep before it whatever object may be within the chamber.

The straight side of the chamber A may also be inclined; but it is not necessary so to make it, and it is preferably made upright.

On each side of the shaft B, and extending to the side of the chamber, are doors D, which I swing upon hinges on their upper edges, so that when the vibrating partition C is moving in one direction or the other, the door D in front of its advance may swing open and permit the fares to be pushed through into the passage X, which conducts to the safe-chamber. Springs E are employed to close the doors when they are not required to be open, and the locking-bolts F are automatically moved by the cam G attached to the lower end of the shaft B, and operated by the same mechanism which moves the vibrating partition C, so that said doors are securely fastened, except at the moment when they are required to open—*i. e.*, when the partition C has reached a certain point in its advance. The lever H is pivoted below the floor of the inspection-chamber, and its front end projects through a small slot, I, in the front of the box J, and said slot is provided with a stop to hold the lever when moved to either end thereof. The rear or inner end of the lever H is connected with and operates a rack, K, which meshes with a pinion, L, secured to the lower end of shaft B, and thereby the vibrating partition is actuated. If desired, the floor of the inspection-chamber may be composed of transparent material, and an

oblique mirror may be placed below it, wherein the driver or other attendant may see the under side of the ticket or fare, and thus be able to detect instantly attempted fraud by the use of split tickets or checks. To admit the use of a transparent floor for the inspection-chamber I have represented the lever H as located at one side of said chamber, and a rack separate therefrom; but if the floor of said chamber is made of opaque material, then I should prefer to employ a segment-rack attached rigidly to the end of said lever H. The edge of the vibrating partition C may be provided with a brush, as shown, or with a strip of some suitable material, so that it will lightly rub the floor of the inspection-chamber and effectually remove any object, however thin, which may be resting thereon. A stud, M, projecting from the side of the vibrating partition C serves to push open the door D in front of the advance of the said partition, and the cam G and locking-bolts are so timed that the door to be opened will not be released until the moment before contact with the stud M. That portion of my fare-box which is above the inspection-chamber I prefer to construct in the form shown only to secure symmetry in appearance. It is thought to be necessary that the fare should pass to the inspection-chamber through a passage-way wherein obstruction may be placed to prevent any abstraction of the fare when once deposited. Any suitable devices for this purpose may be employed. In the drawing I have represented, by dotted lines in Fig. 1, a crooked tube, N, through which the fares are to pass, and it is thought that a tube of that description will be sufficiently efficacious. The said portion of my box may be constructed in any other form which may be preferred or better adapted to the position the box is designed to occupy in the car or omnibus.

It may sometimes be considered desirable to place a bent tube, N, or other obstructed passage, through each side of the upper portion of the fare-box, so that tickets or fares may enter one side or the other of the inspection-chamber, and it may then be desirable to adjust the vibrating partition so that, when at rest, it will divide the inspection-chamber in two compartments. This arrangement will be advantageous when a large number of fares are being received at the same time, because the number can be counted more readily when divided in two parcels. The uncertainty as to which passage a ticket may pass through will render it much more unsafe to attempt fraud by the use of split tickets or checks.

The second part of my invention relates to the money drawer or safe in which the fares are deposited after inspection.

In fare-boxes hitherto in use it has been necessary for an officer of the road to visit each car at least once daily to remove the contents of the money drawer or safe. This operation is onerous and attended with risk.

My invention is designed to facilitate the

removal of the contents of the same by the removal of the safe itself, in a closed condition, from the fare-box to the office of the person who is entitled to its custody, and who alone has charge of the key by which it may be unlocked. By these means the contents of the money-drawers will be secured from depredation *in transitu* between the car and the office; and any trusty employé may be permitted to remove said drawers from the boxes and deliver them at the proper office.

To accomplish my design it is necessary that the drawer or safe shall be secured in the case of the fare-box by a lock, and shall also be provided with a cover, which must be put in place and secured before said safe can be removed from its case. It is evident that these operations of fastening the cover and removing the safe must be dependent upon each other to prevent the possibility of depredations upon the contents. I therefore provide a sliding cover, and cause said cover to be secured by a spring-bolt when it is inserted in place; and said cover, at the same time, forms the key whereby said spring-bolts are withdrawn and the safe unlocked from its case and its removal made possible, so that I have a combined cover and key; and before the liberation of the safe said cover must be in place and automatically secured by a lock, the key to which is possessed only by the person entitled to the custody of the contents of said safe.

O is the drawer or safe, which, when in place, receives the fares discharged from the inspection-chamber. At the rear end of the recess or case wherein said drawer is fitted I place a number of spring-bolts, P, which automatically engage in the keepers Q, and lock the drawer when the same is forced back into its place. The locking-bolts may be as many in number as desired, each additional one rendering it more difficult to fit a false key.

When the locking-bolts are to be removed from their keepers to liberate the drawer they are severally raised by means of the swinging levers R, or some equivalent device; and these are operated by the sliding lid S, each one of the levers being adjusted to rise exactly flush with the surface of the keepers Q, so that the drawer may be drawn from under the bolts P. The edge of the sliding lid or cover S may be indented irregularly at those points where it comes in contact with the levers R, as shown, so that said levers will not be moved equal distances.

The operation of these devices is upon the same principle as the well-known Yale or Egyptian lock; and it is evident that any attempt to fit a key or otherwise unlock the drawer will be rendered vastly more difficult from the fact that the locking devices are all situated at the inner end of the drawer furthest from the only part thereof which is exposed to view.

There is also a spring-lock at the inner end of the drawer, the bolt of which is seen at T

in Fig. 5, to secure the sliding lid when it is placed in its grooves and forced back therein to unlock the drawer. The bolt T engages in the hole U in the lid S, and said hole is made a little longer in the direction of the movement of said lid than is required to receive said bolt, so that said lid may be securely locked before the locking-bolts P are raised quite out of their keepers. This will prevent the possibility of unlocking and removing the drawer without the lid S having been first secured.

The spring-lock to which the bolt T belongs should be of the best quality, and the key in possession only of the person authorized to receive and hold the contents of the safe.

The plates V W are placed in the front part of the drawer O, so that the lid S must pass between them, to embarrass and prevent the abstraction of money or tickets from the safe through the opening made for the introduction of the sliding lid.

I am aware that a money or ticket box has heretofore been made having a chamber for the reception, temporary detention, and inspection of the money, &c., deposited, said chamber being provided with a transparent cover and rotating partitions or wipers within, to remove said money, &c., after inspection and deposit the same in a safe or locked drawer beneath. I therefore do not desire to claim, broadly, a chamber having a transparent cover within which the fare may be temporarily arrested and inspected. I am also aware that it is an old device to provide a drawer with a lid hinged to its front end, so that when said drawer is withdrawn from its case said lid or cover will be automatically shut down and closed, and if said drawer is entirely removed from its case its contents will still be closed and confined by said hinged cover. I therefore do not claim, broadly, a drawer provided with a cover which will be automatically or of necessity closed in removing said drawer from its case.

When the fares are expelled from the inspection-chamber by the movement of the vi-

brating partition they fall down through the passage-way X into the drawer.

The sliding lid S may, while the drawer is in its case, be kept in custody of the officer entitled to the custody of the contents of the safe.

The several drawers in use by one proprietor may be made with the locking-bolts identically placed, so that said drawers may be interchangeable. The sliding lids should not, however, be made interchangeable, but a master-key may be made for any number.

I am aware that a fare-box provided with an opening from front to rear, through which the fare when arrested for the purpose can be inspected and through which change for the passengers can be made, has been previously invented by John B. Slawson, of New York; therefore I do not claim such as of my invention; but

What I do claim is—

1. A fare-box constructed with a semicircular inspection-chamber, A, provided with a transparent cover, a, and a vibrating partition or wiper, C, to remove the fares after inspection and deposit them in the passage X leading to the locked safe below, substantially as set forth.

2. In combination with the vibrating partition or wiper C, the swinging doors D and the automatic locking-bolts operated by the wiper-shaft, substantially as set forth.

3. In combination with a safe or drawer, O, provided with locking-bolts P to secure it in its case, a removable sliding combined key and cover, S, and an independent automatic lock, T, to secure said cover S when the same has been inserted, substantially as and for the purpose herein set forth.

4. In combination with the locking-bolts P, the swinging levers R and the sliding cover S, fitted to act as a key to move said levers and locking-bolts, substantially as described.

Witnesses:

R. D. O. SMITH.

ALONZO HUGHES,
H. S. MILLER.