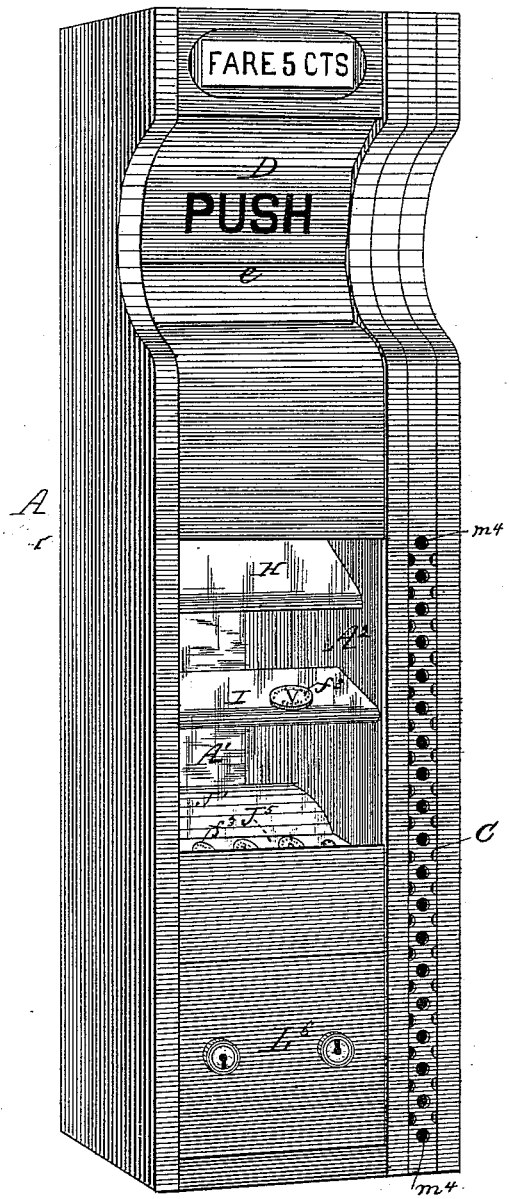
(No Model.) 3 Sheets—Sheet 1.

W. G. PRICE.

FARE BOX.

No. 344,287. Patented June 22, 1886.

Fig. 1.



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(No Model.) 3 Sheets—Sheet 2.

W. G. PRICE.

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Fig. 2.

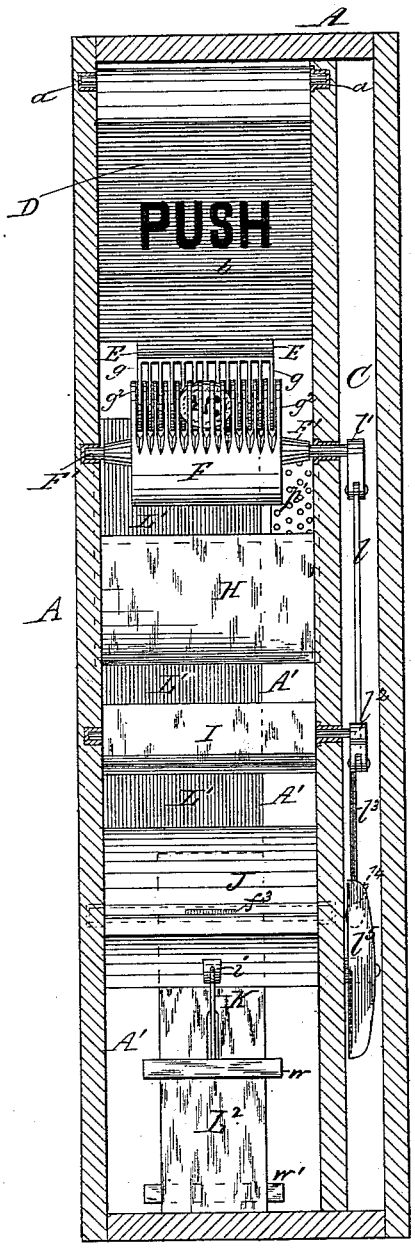


Fig. 3.

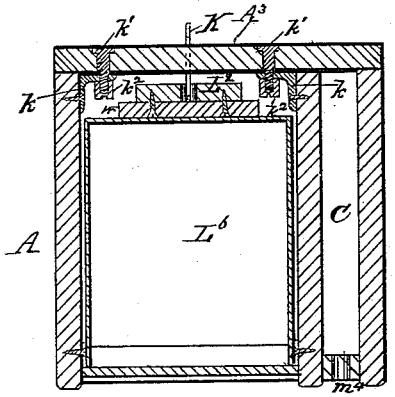
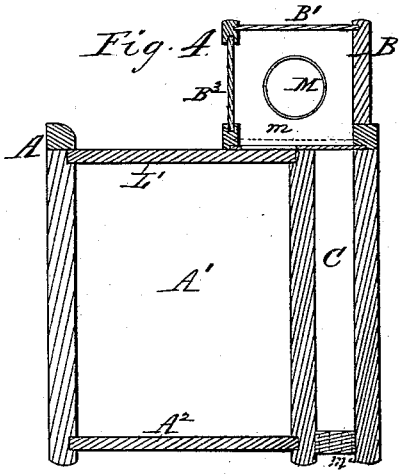


Fig. 4.



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(No Model.) 3 Sheets—Sheet 3.

W. G. PRICE.

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Fig. 5.

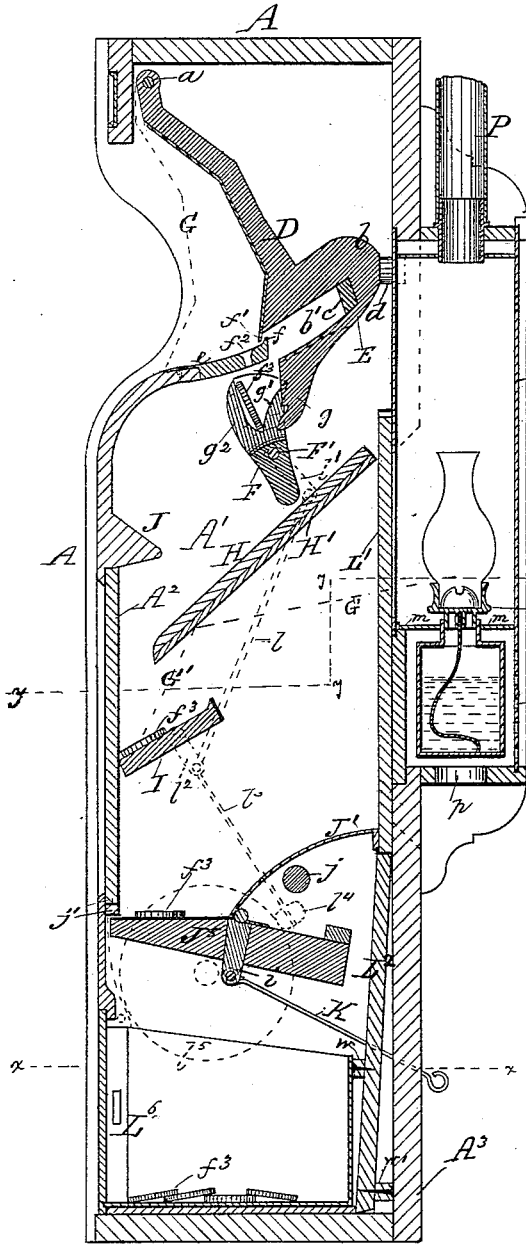
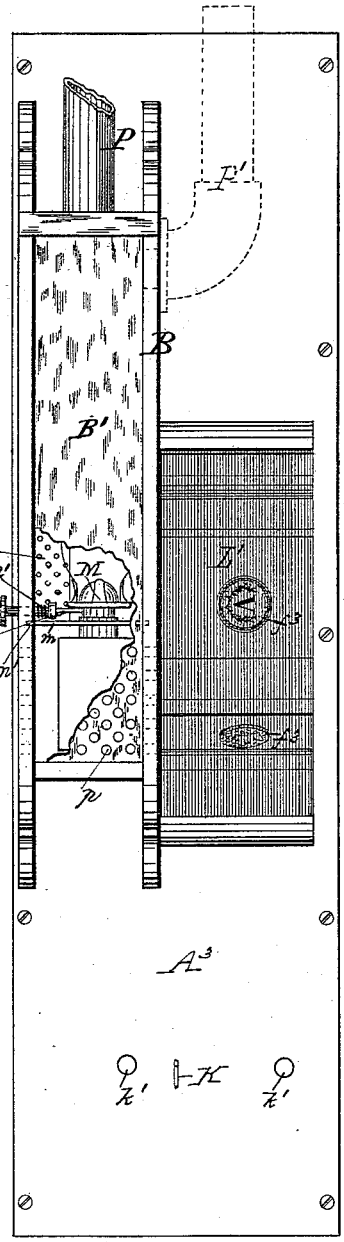


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM GUNN PRICE, OF SCHENEVUS, NEW YORK.

FARE-BOX.

SPECIFICATION forming part of Letters Patent No. 344,287, dated June 22, 1886.

Application filed November 25, 1885. Serial No. 183,952. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GUNN PRICE, a citizen of the United States, residing at Schenevus, in the county of Otsego and State of New York, 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.

This invention relates to improvements in that class of fare-boxes for which Letters Patent of the United States, No. 319,313 and No. 326,778, were granted to me respectively on the 2d of June and 22d of September, 1885.

My present improvements consist in certain novel constructions and combinations of parts, as will be hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 is an external view in perspective of the passenger-fare box as it appears when seen from the inside of a car or other vehicle. Fig. 2 is a vertical section at right angles to the front of the fare-box, showing the casing in section and the other parts in elevation. Fig. 3 is a horizontal section of the fare-box on the line *x x* of Fig. 5. Fig. 4 is another horizontal section on the line *y y* of Fig. 5, showing the fare-box without the operating mechanism. Fig. 5 is a vertical section of the fare-box, this section being taken in two vertical planes, one of which cuts through the fare receiving and exhibiting portion of the case and the other through that portion of the case which contains the lamp. Fig. 6 is an elevation of the fare-box as seen from the driver's platform, a portion of the side plate of the lamp-chamber being broken away.

A in the drawings represents the fare-box, which is constructed with a receiving and exhibiting chamber, A′, a lamp-containing chamber, B, and a chamber, C, for containing the alarm mechanism, and serving other useful purposes.

In the open front top portion of the chamber A′, a push-block, D, is pivoted at *a*, being pendently hung on its pivot-pin. The form of this push-block is clearly shown in the drawings, and it closes the said front top portion of the said chamber. In the slotted portion *b* of this push-block a rubber cushion, *c*, is applied, and behind this portion a rubber bumper, *d*, is attached to the rear wall of the chamber A′.

In the slot *b′* of the portion *b* an inclined or curved plate, *e*, attached to an inwardly-projecting curved portion of the front wall of the chamber A′, is extended, as shown. This curved plate has a guard-lip, *f*, at its rear extremity, and in front of this lip a stop, *f′*, is provided on the push-block D, as shown, and just forward of the said stop is a narrow vertical, or nearly vertical, passage, f^2, for admission of a ticket or a five-cent piece, or other denomination of currency which is the price of a passenger's fare on a car or other vehicle.

Below the slot *b′* of the portion *b* of the push-block a comb-plate, E, is constructed upon the push-block, the same being narrower than the push-block, and consisting of a solid tooth-stock, with a number of long narrow notched teeth, *g*, extending down therefrom, as shown, and below this comb-plate a double comb-plate ticket or fare receiver, F, is applied upon a vibrating shaft, F′, which has its support in the side walls of the chamber A′, as shown.

The teeth g' g^2 of the solid stock F of the double comb-plate form two rows, those of one row inclining toward the front wall, and the other toward the rear wall, of chamber A′, and the two being united together at their bases in the stock and forming above said stock a V-shaped channel or receptacle for the passenger's fare, as shown.

The teeth *g* of the comb-plate E are constructed and arranged to pass between the teeth g' g^2 of the comb-plate F, as is illustrated in the drawings.

When the push-block is in its normal position, (shown by the dotted line G in Fig. 5,) a passenger pushes it back to the position shown in full lines in same figure and deposits his fare f^3 through the passage f^2 into the V-shaped channel of the double comb-plate F, as illustrated in Fig. 5. As soon as the push-plate is released, it seeks by its gravity to assume its normal position; but this it cannot do until its single comb-plate has by its teeth

passing through the rear row of comb-teeth g' and coming in contact with the fare f^3 tilted the double comb-plate, and thereby discharged the fare from the double comb-plate upon appliances which will presently be described. When the fare is out of the V-shaped channel, all the parts can automatically assume their normal positions, and so often as the fare stands as an obstacle to this taking place the means are afforded whereby a fare-alarm mechanism and other parts can be operated; but when the fare is not in its place, neither such alarm mechanism nor other connected parts will be operated. With the double comb-plate the necessary full space for the entrance of the fare into the V-shaped channel or receiver can be secured, for the push-block can be moved back independently of the double comb-plate the full extent necessary; but with the comb-plates jointly forming the fare receptacle or channel, as heretofore, this full space is not provided at the right moment, and sometimes the fare is turned about and passed between the teeth and the desired accurate registration is not accomplished. The notched or shouldered edges of the teeth of the comb-plate E act by means of the shoulders or notches to prevent the fare rising out of the V-shaped channel formed by the double comb or fare-receiver F', for when the push-block falls back or to its normal position the teeth in the comb E press against the fare and the fare slides up until its lower edge is caught or arrested by the notches of the teeth of this comb, and being thus prevented from rising higher the double comb is compelled to turn over far enough to discharge the fare. Thus the fare is kept from being moved improperly and its proper discharge insured. The said notches are preferably below the top of the fare, so that the lower edge of the fare shall be arrested by them during the passage of the teeth of the comb E between the teeth of the comb or receiver F'.

H H' is a guide comprising a double mirror, being formed of two mirrors placed back to back, and set with a downward inclination from the back to the front walls of the chamber A'. The front mirror may be of glass or polished metal, and be made to serve as a reflector, a protector of the silvered surface of the rear mirror, H', which may be of glass, as well as a guide for conducting the fare upon an exhibition-plate, I. In front of the guide a beveled deflector, J, is applied on the front wall of the chamber A', and by this deflector the fare f^3 is caused to descend properly upon the guide. Below this deflector, and also below the exhibition-plate I, the front wall of the chamber A' is cut away, as shown, and a pane of glass, A^2, set into the opening thus formed. The exhibition-plate I is arranged to vibrate, being provided with journals which are supported in the front and rear walls of the chamber A', and it is formed of a plate of glass, which may be set in a suitable metal frame and have at its rear upper edge a guard for preventing the fare slipping off it backward. This plate, when a fare is being deposited at f^2, will stand inclined with its front edge resting against the front wall of the chamber A', and a fare, f^3, will be exhibited thereon to the passengers in the car by the aid of the reflected light from the lamp-chamber, as indicated by the dotted line G'; but when the parts are allowed to assume their normal positions the exhibition-plate will stand less inclined and allow the fare f^3 to descend upon a general receiving-plate, J^5, which is arranged upon journals having their supports in the front and rear walls of the chamber A', and can be tilted on said journals by the driver pulling upon a rod, K, attached to a crank-arm, i, and extended to the outside of the fare-box. When this receiving-plate is heavily charged with fares f^3, the driver pulls upon the rod K and causes the fares to be deposited into a locked drawer, L^6. About one-half of the upper surface of the receiving-plate J^5 is covered by a curved guard plate, J', and beneath this plate a stop, j, for limiting the movement of the rear edge of the plate J, is provided, while a stop, j', for limiting the movement of its front edge, is also provided, and for insuring the proper return of this plate to its normal position its rear edge is weighted, as illustrated in the drawings.

The fare-drawer L^6 is provided with a lock or locks, as usual, and to prevent entrance to the fare-box by unscrewing its back wall-plate A^3, this plate, in addition to being screwed to the side walls of the chamber A', is fastened on the inside, as shown in Fig. 3, by means of angle-irons k, unnicked-headed screw-bolts k', having square shanks, and nicked nuts k^2, applied to the screw-bolts on the inside of the walls of chamber A'. With this construction it is hardly possible for the box to be taken apart and the drawer to be robbed, and therefore unless the drawer is unlocked and withdrawn its contents cannot be tampered with. The double comb-plate F is connected with the exhibition-plate I by means of a connecting-rod, l, a crank-arm, l', on one of its journaled ends, and a crank-arm, l^2, on one of the journaled ends of the exhibition-plate, and the exhibition-plate is connected to the arm l^3 of the alarm-hammer l^4 by means of the crank-arm l^2, to which the connecting-rod l' is attached. Below the hammer a bell or gong, l^5, is placed.

All the parts for sounding the alarm when a fare is deposited are placed in the separate chamber, C, and this chamber has openings m^4 for the free passage of the sound when the gong is struck, thus rendering the alarm more distinct, said openings also serving for supplying air for promoting combustion of the material used in the lamp-chamber B for giving illumination to the inside of the fare-box. The lamp-chamber B is provided with a side glass window, B^3, for giving light

to the driver, and is located on the back wall of the chamber A′ opposite an opening in said wall, which is closed by a vertically-movable glass slide, L′, which is fitted in guiding-ways of the fare-box and held up by means of a narrow removable prop, L^2, which rests on the bottom wall-piece of the chamber A′. By taking out the drawer L^6 and pulling the prop L^2 from under the glass slide the slide will descend, so that it can be cleaned and rendered more available for the transmission of the light from the lamp into the chamber A′, and upon the mirror, exhibition-plate, and fares paid by passengers. The prop is caused to stand slightly inclined by means of strips *w w′*, applied to it, as shown. The lamp M may be of any ordinary construction adapted for the purpose, but the one shown will be found very convenient and effective. This lamp M is formed with horizontal flanges *m* between its oil-reservoir and burner, and these flanges slide laterally in grooves or ways *m′* of the chamber B, and they serve for dividing the chamber B into two compartments. By this construction the oil-reservoir is isolated from the flame, and can be kept comparatively cool, and the lamp thereby rendered less liable to explode, and blasts of air which would blow out the lamp are excluded from the flame-compartment. The wick-adjuster N of this lamp has its turn-button or head squared, and an auxiliary sliding key-button, *n*, is coupled by means of a socketed inner head to said squared head. A spring, *n′*, placed between the wall of the lamp chamber and key-button *n*, permits the key-button *n* to be uncoupled from the adjuster N when it is desired to withdraw the lamp. This spring also allows the key-button to be moved out of the way when the lamp is being put in the chamber, and then readjusts the key-button to its coupled position with said adjuster N. The back plate, B′, of the lamp-chamber is applied to slide up and down, so as to permit access to the lamp, and in the lower part of this slide, as well as in the side walls and bottom of the chamber B, apertures *p*, for the admission of air below the lamp-burner for cooling the oil-reservoir, are provided, as shown, the air for promoting combustion being admitted above the reservoir through apertures *p′* in the back wall of the chambers A′ and C. The draft-tube P for the lamp-chamber may be arranged at the top of said chamber, as shown by full lines in Fig. 5, or it may be near the top, as illustrated by the dotted lines at P′ in said figure.

I do not claim the construction and combination of push-block and pivoted toothed plate for receiving and depositing the fares, as shown in my Patent No. 319,313, nor the construction and combination of push-block, pivoted toothed plate for receiving and depositing the fares, nor the combination of a conducting-plate, an exhibition-plate, alarm-hammer, and gong, nor the combination of the final reception and discharging plate or platform for the accumulated fares, as shown in my Letters Patent No. 326,778. Neither do I claim the construction and combination, as shown in Letters Patent No. 216,952, No. 143.698, No. 63,804, and No. 86,189.

What I claim as my invention—

1. A temporary fare-receiver for a fare-box, comprising two rows of teeth inclined in opposite directions, and a comb stock or plate carrying said teeth, and provided with journals for the receiver to vibrate upon, substantially as described.

2. The temporary fare-receiver for a fare-box, comprising two rows of teeth and a comb stock or plate having journals upon which it vibrates, in combination with a swinging pendent push-block, which is weighted and provided with a comb-plate having a single row of teeth adapted to pass back and forth between the teeth of the double comb-plate, and on the return movement to strike the inserted fare, and thereby tilt the said receiver and discharge the fare therefrom, substantially as described.

3. The combination of a push-block having a toothed plate or comb attachment, a pivoted comb provided with a double row of teeth forming a temporary fare-receiver, a stationary fare-conducting guide, and a transparent tilting exhibition-plate, the journals of the fare-receiver and exhibition-plate being provided with arms or levers and connected by a rod, substantially as described.

4. The combination, with a lamp, B, a fare-receiving chamber, A′, the temporary fare-receiver, and the fare-discharger, of the inclined conducting-guide formed of two mirrors, the lower one of which is protected by the upper one, and is adapted to reflect the light of the lamp upon an exhibition-plate as well as the fare thereon, substantially as described.

5. The combination, in a fare-box, of chamber A′, a lamp-chamber, side chamber, C, having a perforated or open-work front and a perforated back wall, a gong, a hammer, both in said chamber *c*, and a tilting temporary fare-receiver, substantially as described.

6. The combination, in a fare-box provided with an opening in its rear, of a glass plate closing said opening, a removable prop for said glass, and the money-drawer, substantially as and for the purpose described.

7. The combination, with the chamber A′, of the fare-box provided with a glass-closed opening at its back, of the lamp chamber B, and a lamp having a dividing-plate, *m*, the said chamber having its oil-reservoir compartment perforated below the dividing-plate, and its flame-compartment perforated at *p′* above said plate, substantially as described.

8. The combination, with the fare-box provided with the lamp and lamp-chamber, of the externally-operated sliding spring-acted

key-button *n*, and the internally-operated square-headed button of the wick-adjuster N, substantially as described.

9. The combination of the fare-box having three chambers, A' B C, the pendent weighted push-block having a comb attachment, the weighted pivoted temporary fare-receiver having two rows of teeth, the deflector, the double mirror forming a fare guide and reflector, the transparent tilting fare-exhibition plate, the alarm-hammer in the chamber C, and having its operating-arm attached to the exhibition-plate and connected to the double comb-plate, a gong also in the chamber C, a tilting plate for discharging the accumulated fares into the money-drawer, provided with a rod by which the driver operates it, and a lamp placed in the chamber B, opposite the glass-covered opening of the side of said chamber and back of the fare-box, substantially as described.

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

WILLIAM GUNN PRICE.

Witnesses:

JOHN C. HOUSE,

H. A. KENNEY.