E. S. BUCKNAM.

OPERATING DEVICE FOR CAR FARE REGISTERS.

APPLICATION FILED FEB. 15, 1908.

971,968. Patented Oct. 4, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

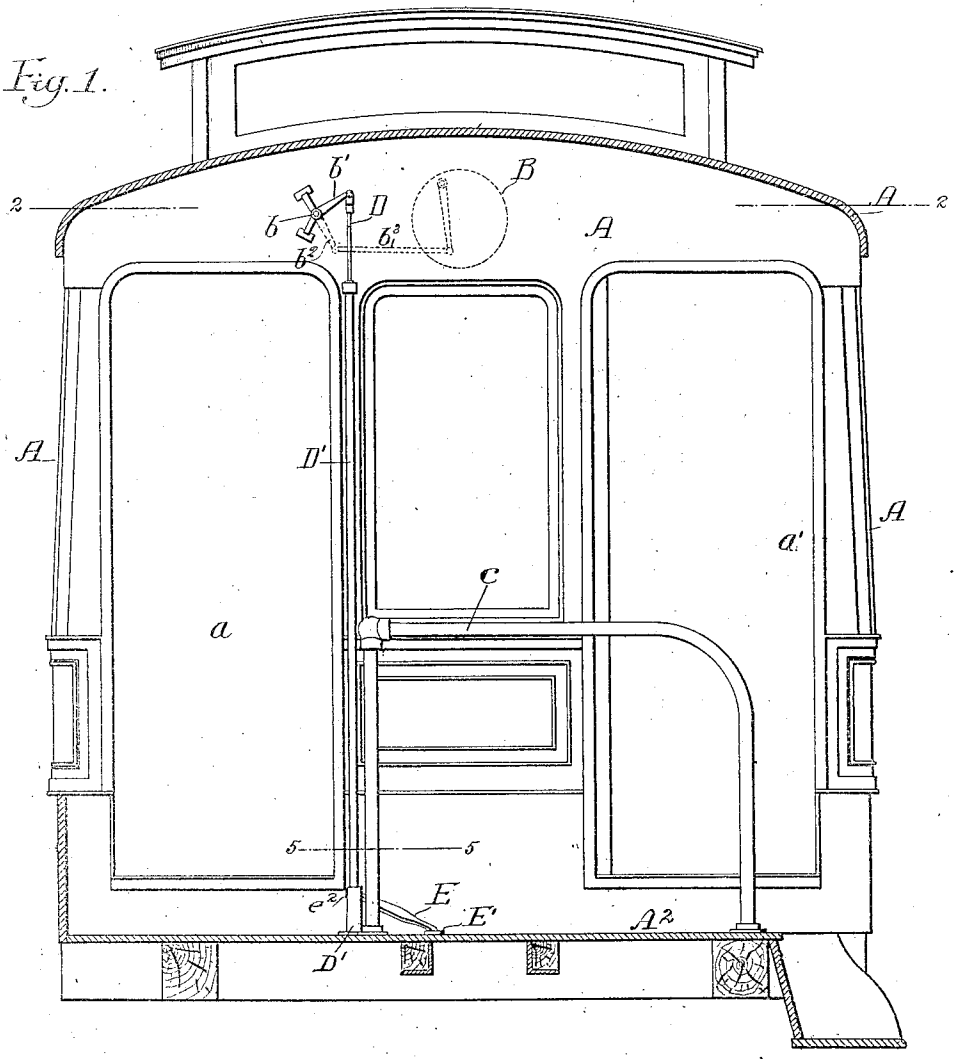

Fig. 2.

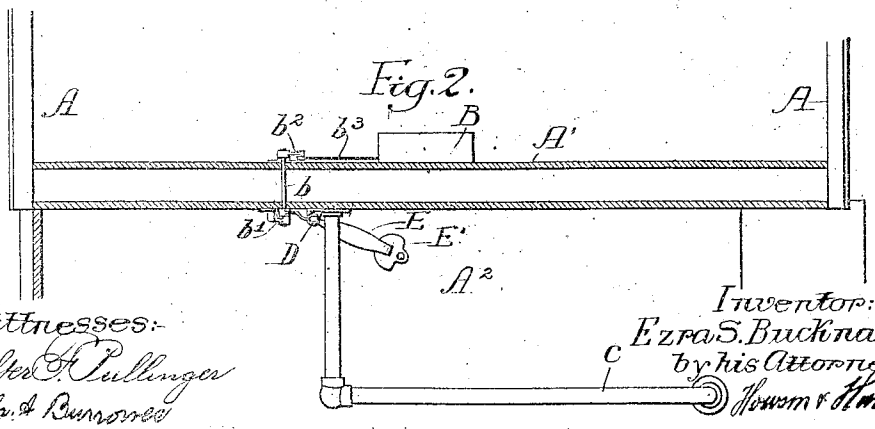

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Fig. 5.

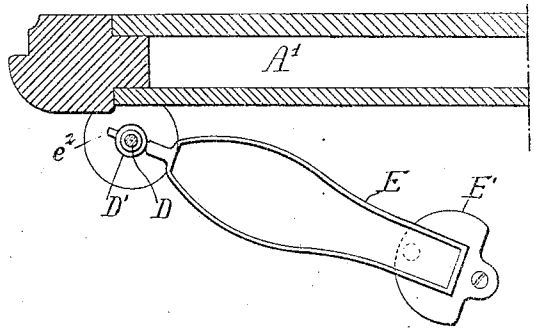


Fig. 3.

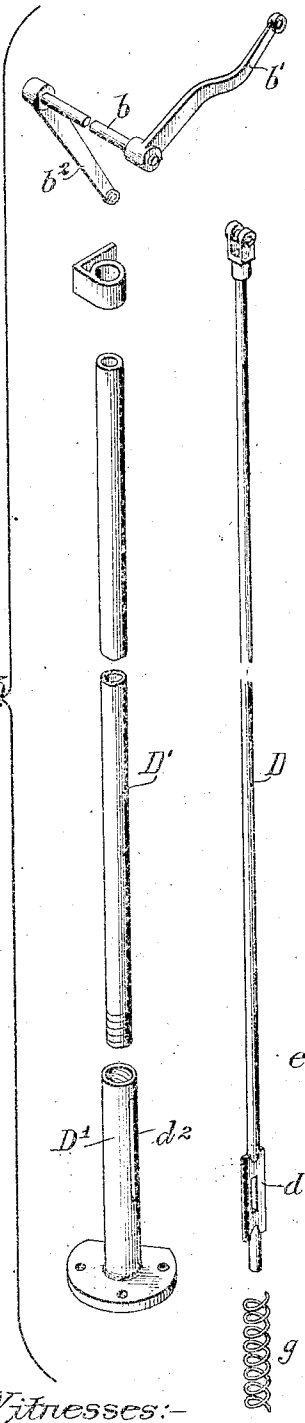
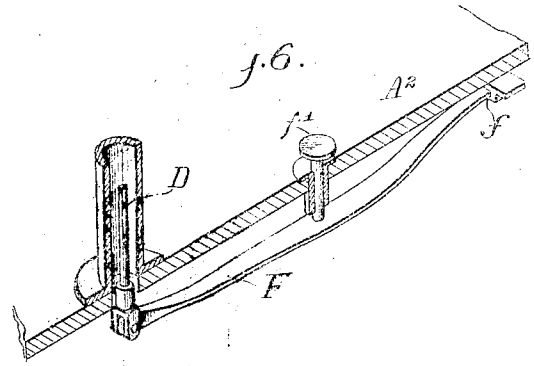


Fig. 6.



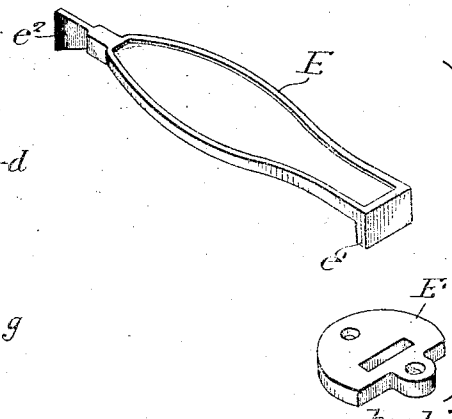


Fig. 4.

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UNITED STATES PATENT OFFICE.

EZRA S. BUCKNAM, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE J. G. BRILL COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

OPERATING DEVICE FOR CAR-FARE REGISTERS.

971,968. Specification of Letters Patent. Patented Oct. 4, 1910.

Application filed February 15, 1908. Serial No. 416,051.

To all whom it may concern:

Be it known that I, EZRA S. BUCKNAM, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Operating Devices for Car-Fare Registers, of which the following is a specification.

My invention relates to certain improvements in mechanism for actuating the fare registers of cars, and particularly of street or trolley cars known as "pay-as-you-enter" cars.

One object of my invention is to so construct the mechanism that the register can be operated by the foot in place of the overhead cords or rods, so as to allow the hands to be perfectly free.

A further object of the invention is to make the treadle detachable so that it can be uncoupled from the mechanism when the conductor is away from his post.

These objects I attain in the following manner, reference being had to the accompanying drawings, in which:—

Figure 1, is a transverse sectional view through the platform of a "pay-as-you-enter" car, illustrating my invention; Fig. 2, is a sectional plan view on the line 2—2, Fig. 1; Fig. 3, is a perspective view showing parts of the operating mechanism detached; Fig. 4, is a perspective view of the treadle and its pivot plate; Fig. 5, is an enlarged sectional plan view on the line 5—5, Fig. 1; and Fig. 6, is a view illustrating a modification of my invention.

A is the frame of the car.

A′ is the partition separating the platform A^2 from the interior of the car. In this partition are two doorways *a*, *a′*; the doorway *a* is the entrance into the body of the car and the doorway *a′* is the exit from the body of the car. The conductor stands on the platform in the space between the two doorways and is guarded usually by the railing *c*.

On the inner side of the partition, in the present instance, is the register B of any suitable type, and extending through the partition is a shaft *b* having two arms *b′*, b^2, the arm *b′* being on the outside of the partition and the arm b^2 being on the inside of the partition, and connected to the registering mechanism by the connecting rod b^3.

D is a rod connected to the arm *b′* on the outer side of the partition and extends down to a point near the platform and is inclosed in a casing D′; the casing preferably extending to a point near the upper end of the doorway so as to prevent the rod being operated by any one with the exception of the conductor using the treadle. In the lower end of the rod D is an eye *d*.

e is a treadle having a depending lug *e′* mounted in a slot in the pivot plate E′ secured to the platform of the car. The treadle has a projecting finger e^2 which extends through the slot d^2 in the casing and through the eye *d* in the rod D; the lower edge of this finger is preferably beveled as shown. The treadle is readily detachable from the plate and from the rod so that when the conductor leaves his post the register cannot be operated accidentally or maliciously.

d′ is a spring situated in the bottom of the casing D′ and adapted to bear upon the rod D so as to elevate the rod against the pressure of the treadle. In some instances this spring may be dispensed with when the spring in the register is sufficient to lift the rod.

In the cars known as "pay-as-you-enter" cars, in which the conductor stands at the entrance doorway, it is desirable that he have his hands entirely free so as to make change quickly, and to prevent people rushing past him to enter the car without paying, and if he has to use his hands not only to make change but to ring up the fares, he is liable to miss one or more passengers, but if the register is operated by the foot then his hands are entirely free.

In some instances the register may be at the opposite end of the car from the conductor's platform, in which case the shaft *b* may extend throughout the length of the car and may be connected in any suitable manner to the register. In some instances also, in place of using the particular form of treadle illustrated in Fig. 4, the construction shown in Fig. 6 may be used, in which the rod D extends through the platform and is connected to a spring F secured at *f* to the underside of the platform, and a push pin *f′* is mounted in an opening in the platform and of such a length as to rest upon the spring. The conductor can operate the register by pressing down the pin and this pin can be readily removed when the conductor desires to leave his post. Instead of the rod

D a wire may be used to connect the treadle with the arm b', but I prefer to use a rod, and inclose it, as shown.

If a double-ended car is used with a single register, then the shaft is run from one end of the car to the other and connected to the register, and the treadle operating mechanism is duplicated at each end of the car, the treadle being preferably so made that it can be attached to the mechanism at either platform. If the mechanism is used in a double-ended car having two registers, then the registering mechanism, as well as the operating mechanism, is duplicated at each end of the car without the shaft running through the car, and the treadle is detachable so that it can be applied to the mechanism at either end of the car. If the register is situated on the outer side of the car then the shaft b need not be used and the rod D either connected directly to the register or through a bell crank lever.

I claim:—

1. The combination of a car, a register, a rod connected to the register and extending to a point near the floor of the car, a casing inclosing the rod, said casing having an opening near its lower end, a detachable treadle extending through the opening and engaging the rod, the casing preventing the operation of the register when the treadle is detached.

2. The combination of a car having a floor, a register, a rod connected to the register and extending to a point near the floor and having an eye at its lower end, a pivot plate in the floor having a slot therein, a detachable treadle having a lug adapted to the slot in the plate, and a projecting finger extending through the eye in the rod.

3. The combination of a car having a floor, a fare register, a rod connected to the fare register and extending to a point near the floor and having an eye, a tube inclosing the rod and slotted at its lower end opposite the eye in the rod, a treadle detachably pivoted to the floor and having a finger projecting through the slot in the tube and through the eye in the rod, the lower edge of the finger being beveled, and means for normally holding the rod in its raised position.

4. The combination of a car, a register on the inside of the car, a shaft extending through the partition of the car and having two arms, one on one side of the partition and the other on the opposite side, one of said arms connected to the register, a rod connected to the other arm, a tubular casing inclosing the rod, a slot in the lower portion of the casing, and a treadle pivoted to the platform and extending through the slot in the casing and connected to the rod.

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

EZRA S. BUCKNAM.

Witnesses:
Jos. H. Klein,
Wm. A. Barr.