UNITED STATES PATENT OFFICE.

WILEY S. GILLAM, OF ATLANTA, GEORGIA.

ACUTATING MECHANISM FOR REGISTERS.

1,238,283.

To all whom it may concern:

Be it known that I, Wiley S. Gillam, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Actuating Mechanisms for Registers, of which the following is a specification.

This invention relates to registers and more particularly to the actuating mechanisms for the cash registers of street cars and the like.

One of the objects of the present invention is to provide a simple and practical actuating mechanism for the cash registers of street cars which will be reliable and efficient in use and operation. Another object is to provide an actuating mechanism of the above general character which will cause the register to indicate the number of people entering a street car, and the fares collected.

Other objects will be in part obvious from the annexed drawings and in part indicated in connection therewith by the following analysis of this invention.

The invention accordingly consists in the features of construction, combination of parts and in the relative relations of the members and in the relative proportioning and disposition thereof, all as more completely outlined herein.

To enable others skilled in the art so fully to comprehend the underlying features thereof that they may embody the same by the numerous modifications in structure and relation contemplated by this invention, drawings depicting a preferred form have been annexed as a part of this disclosure, and in such drawings like characters of reference denote corresponding parts throughout all the views, in which—

Figure 1 is a perspective view showing the complete apparatus;

Fig. 2 is a sectional view showing a portion of the actuating mechanism;

Fig. 3 is a sectional view at right angles to Fig. 2;

Fig. 4 is a view similar to Fig. 3 showing a slight modification;

Figs. 5 and 6 are detail perspective views.

Referring now to the drawings in detail, and more particularly to Fig. 1, there is indicated the rear end of the street car provided with a platform 10, an entrance step 11 divided into two parts, the right-hand part permitting the exit for passengers while the left-hand part is provided with an auxiliary step 12 actuated whenever a passenger above predetermined weight, say thirty pounds, enters the car. A hand rail 13 and guide rail 4 on the platform direct the passengers to and from the car.

Broadly speaking the mechanism includes the auxiliary step and certain intervening mechanism between the step and the cash register adapted to transmit motion from one to the other, whereby as each passenger steps upon the auxiliary step 12 it will cause the cash register to be actuated and ring up the fare given to the conductor by the entering passenger. The step 12 is provided at each end with a sheet metal guard flange 15 and along the front side with a downwardly turned flange 16 adapted to inclose the step and protect the mechanism interposed between the step 11 and the auxiliary step 12 from dust and dirt. This mechanism, as shown in Fig. 2, comprises a plurality of springs 16, preferably four in number, one near each corner of the step, resting in pockets 17. These springs are adapted to be compressed as a passenger or one above the average weight of a five-year old rests upon the step 12, and to restore the step to normal position as the passenger steps on the platform 10.

Running longitudinally of the step are a pair of rods 18 having downwardly turned ends 20, as shown in Fig. 5, provided with anti-friction rollers 21, at each end, adapted to travel in slots 22 in the end flange 15. This mechanism insures the entire bodily movement of the step 12 whenever a passenger rests thereon, and prevents one end from tilting upwardly, thereby possibly causing the passenger to lose his balance.

This mechanism may be modified slightly as shown in Fig. 6, in which case the rod 18 is provided with rollers 24 at each end, traversing slides 25 in brackets 26 secured to the under side of the step 12. The extreme end of the rod 18 is mounted in a fixed bearing member 27 secured to the main step 11.

This movement of the auxiliary step 12 is transmitted to the cash register by means of a T-shaped bracket 30, the head of which slides, and guides 31 on the step riser 32 while the body portion of the bracket 30 extends transversely beneath the step 12. The lower end of the member 30 has pivotally connected therewith at the point 34 a link 35 the upper end of which is pivotally connected at 36 with a bell crank lever 37.
supported on bracket 39. The opposite end 38 of this lever is adjustably connected by means of a clamp 40 to one end of a cord 41, which passes over certain pulleys 42 on the car body, and thence to the cash register as indicated in Fig. 1. As the bell crank lever 37 is rotated the point 38 moves toward the left, and in order to insure the proper tensioning of the cord 41 to actuate the cash register there is provided a U-shaped projection 43 adapted to engage under the cord 41 as the bell crank lever rotates.

In Fig. 4 there is shown a slight modification in which the link 35 is connected to an arm 44 mounted upon the shaft 45. Keyed to this shaft is an arcuate member 46 to which the end of the cord 41 is adjustably connected by means of a pin 47. Thus as the shaft 45 is rotated the member 46 will be correspondingly rotated to pull the cord 41 toward the left.

It is believed that the method of operation of a device of this character is clear from the above. It is sufficient to state that as the person steps onto the auxiliary step 12 the latter will move bodily downwardly causing a depression of the bracket 30 connected to the under side thereof, which in turn transmits motion through the bell crank lever 37 to the cord 41. As the person steps into the car pressure is relieved upon the auxiliary step 12 and the four springs 16 restore the same to its former position, as indicated in Figs. 2 and 3. The provision of the rods 18 and rollers 21 traversing the slots 22 insures that the step moves bodily and is free from any tilting motion.

It is believed that the present invention is of simple and practical construction, and is adapted to accomplish among others all of the objects and advantages herein set forth.

I realize that considerable variation is possible in the details of construction and arrangement of parts without departing from the spirit of my invention, and I therefore do not intend to limit myself to the specific form shown and described.

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

1. In combination with a car provided with an entrance and exit step, an auxiliary step at one end, a plurality of springs near the corners of the auxiliary step resting in pockets in the entrance step for restoring the auxiliary step to normal position after being depressed, a plurality of longitudinal members associated with the under side of said auxiliary step having bent ends, rollers carried by the bent ends thereby to insure an equal movement of both ends of the step when depressed by an entering passenger, and means for transmitting motion from the auxiliary step to a cash register comprising a sliding bracket secured to the riser of the step having a laterally extending arm engaging the under side of the auxiliary step adapted to prevent rocking movement of the auxiliary step and a flexible connection between said sliding bracket and cash register.

2. In combination with a street car having a main step, an auxiliary step, spring means for holding the step in normally raised position, guards for inclosing the space between the main step and auxiliary step having slots associated therewith, longitudinally disposed rods having bent ends, rollers carried by said bent ends adapted to traverse said slot whereby equal movement of the opposite ends of the step is insured, guides in the riser of the main step, a sliding bracket mounted in said guides and having a laterally extending part engaging the under side of the auxiliary step, a bell crank lever, means connecting the bracket with the bell crank lever for transmitting motion thereto when the step is depressed, and flexible means extending from said bell crank lever and connected with the cash register whereby the cash register is actuated when the step is depressed.

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

WITNESSES:

W. C. BROOKS,
W. C. CARSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."