W. H. HORNUM.

Fare-Register.

No. 165,832. Patented July 20, 1875.

Fig. 1.

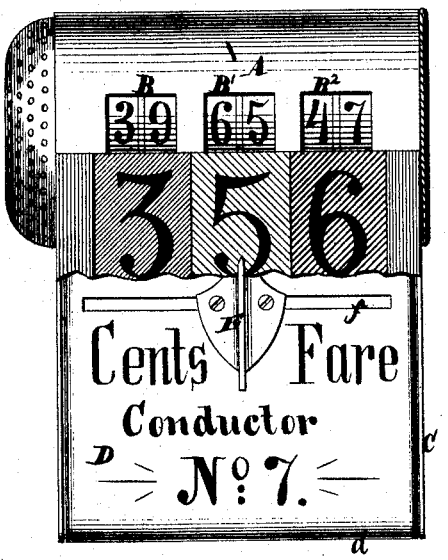


Fig. 2.

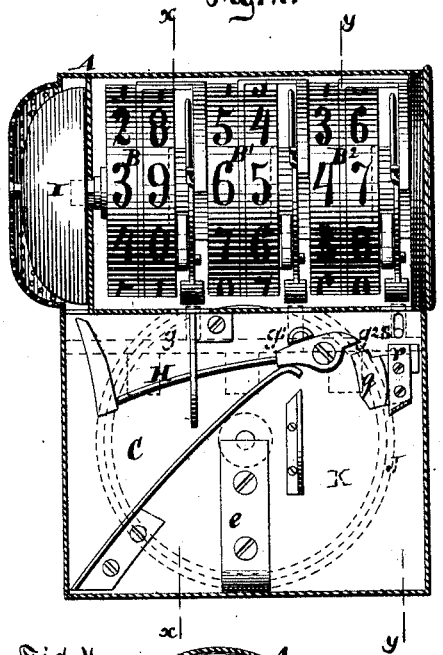


Fig. 3.

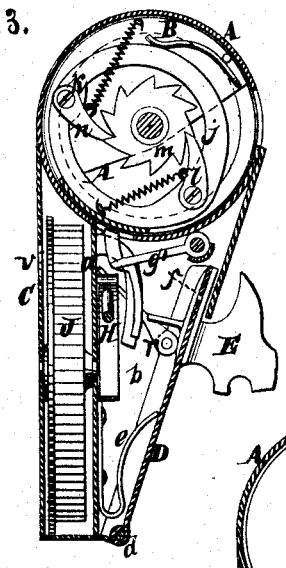


Fig. 4.

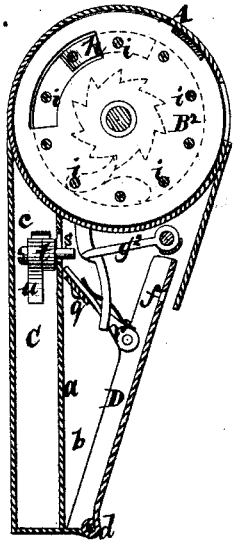
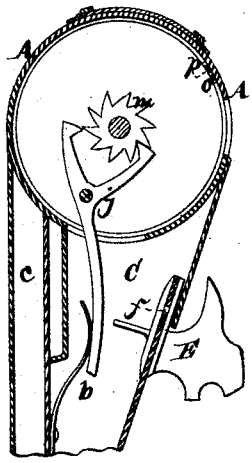


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM H. HORNUM, OF NEW YORK, N. Y.

IMPROVEMENT IN FARE-REGISTERS.

Specification forming part of Letters Patent No. **165,832**, dated July 20, 1875; application filed May 26, 1875.

To all whom it may concern:

Be it known that I, WILLIAM H. HORNUM, of the city, county, and State of New York, have invented a new and useful Improvement in Fare-Registers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a face view, some parts being broken away to expose the working parts. Fig. 2 is a longitudinal section. Fig. 3 is a transverse section in the plane *x x*, Fig. 2. Fig. 4 is a similar section in the plane *y y*, Fig. 2. Fig. 5 is a transverse section of a modification of the same.

Similar letters indicate corresponding parts.

This invention consists in a sliding trigger, in combination with two or more anchor-levers, each of which acts on a distinct set of registering-wheels, so that by moving the trigger fares of different amounts can be registered. With the sliding trigger, the anchor-levers, and the several sets of registering-wheels are combined a hammer and a bell, so that whenever the sliding trigger is depressed and a fare is registered on either of the sets of registering-wheels, the bell is struck. With the sliding trigger, the anchor-levers, and the sets of registering-wheels is further combined a general registering mechanism, which is propelled each time the sliding trigger is depressed, so as to register the entire number of passengers independent of the amounts of fares paid by them.

In the drawing, the letter A designates a cylindrical case, which contains two or more sets of registering-wheels, B B^1 B^2, and which is fastened to another case, C, which is divided by a partition, *a*, in two compartments, *b c*. The front plate D is connected to the body of the case by a hinge-joint, *d*, and a spring, *e*, has a tendency to force said front plate out to the position shown in Figs. 3 and 4. In this front plate is a slot, *f*, which forms the guide for a trigger, E, and beneath this front plate are two or more levers, *g* g^1 g^2, each of which serves to actuate one of the sets of registering-wheels B B^1 B^2. Each set of registering-wheels consists of a unit-wheel and a ten-wheel, the unit-wheel being provided with a spring-pawl, *h*, which, whenever said unit-wheel has completed nine-tenths of a revolution, engages with one of ten pins, *i*, projecting from the sides of the ten-wheel, and as the unit-wheel completes the last tenth of its revolution, the ten-wheel is moved with it.

The mechanism for propelling the registering-wheels, as shown in Fig. 3, consists of an anchor, *j*, which swings on a pivot, *k*, and carries a spring-pawl, *l*, that engages with a ratchet-wheel, *m*, secured to the unit-wheel, said ratchet-wheel being provided with ten teeth, so that each time the appropriate lever *g*, g^1, or g^2 is actuated, the corresponding unit-wheel is propelled one-tenth of a revolution. A stop-pawl, *n*, prevents said unit-wheel from moving backward.

On the face of each of the registering-wheels are marked the figures from 0 to 9, and consequently each set of registering-wheels is capable of registering ninety-nine fares.

It will be noticed that in the mechanism shown in Fig. 3, the levers *g* g^1 g^2 are detached from the anchor *j h*, and in this case the registering-wheels can be turned forward by hand, and the correctness of the result can be spoiled. For this reason I prefer to make the levers *g* g^1 g^2 in one piece with their anchors, as shown in Fig. 5. This anchor-lever effectually prevents the registering-wheels from being turned forward, except by the action of the appropriate lever; but each set of registering-wheels may be turned backward until caught by a stop, *o*, secured to one of the wheels, and by a lug, *p*, secured to the case A. These stops are so placed that they enable the person in charge of the fare-register to place each set of registering-wheels to their starting-points.

The trigger E can be moved in its guide-slot *f* over either of the levers *g* g^1 g^2, and if the front plate D is then depressed, the trigger acts on the lever beneath it, and the corresponding registering mechanism B, B^1, or B^2 is propelled one step. One of these registering mechanisms is intended for three-cent fares, one for five-cent fares, and one for six-cent fares, and, if desired, still more registering mechanisms may be added for fares of other amounts.

On the front plate D of the case C is secured a compound pawl, q r, and if said front plate is depressed, the arm q of said pawl acts on the tail end of the hammer H, so as to cause the same to strike the bell I. The arm r of said compound pawl acts on a pin, s, which projects from a lever, t, situated in the inner compartment c of the case C. This lever carries a spring-pawl, u, that engages with teeth cut in the periphery of a ring, J, that embraces a disk, K. The ring J and the disk K form the general registering mechanism. The ring J is provided on its face with figures from 1 to 100, and the disk K bears on its face one hundred radial marks and figures, beginning with 1, and running from 1 to 5, the ring being connected to the disk in such a manner that for each complete revolution of the ring the disk is caused to move one-hundredth part of a revolution, and thus, by means of this general registering device, ten thousand passengers can be registered. The figures and marks of the ring and disk can be seen through an aperture, v, in the back plate of the case C; and since this general registering device will be moved invariably one step for each depression of the front plate D, the number indicated by it for each trip must tally with the sum of the number indicated by the several registering devices B B^1 B^2 for the same trip.

This device is intended to be secured in a convenient position on the front of the conductor of a railroad car or train, and for each fare received by him he is obliged to move the trigger to the corresponding anchor-lever, and to depress the front plate D. This operation he can easily perform with one hand, and the number and amount of fares received can be read off at the end of each trip.

What I claim as new, and desire to secure by Letters Patent, is—

1. The sliding trigger E, moving in a guide-slot in the front plate of the case C, in combination with two or more levers, g g^1 g^2, and corresponding registering-wheels B B^1 B^2, substantially as shown.

2. The sliding trigger E and hinged front plate D of the case C, in combination with the registering devices B B^1 B^2, two or more, and with a bell and hammer or other alarm, substantially as set forth.

3. The sliding trigger E and hinged front plate D of the case C, in combination with the registering devices B B^1 B^2, one or more, and with the general registering mechanism J K, substantially as and for the purpose shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 22d day of May, 1875.

WILLIAM H. HORNUM. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.