

W. MILLER.  
Fare-Register.

No. 167,682.

Patented Sept. 14, 1875.

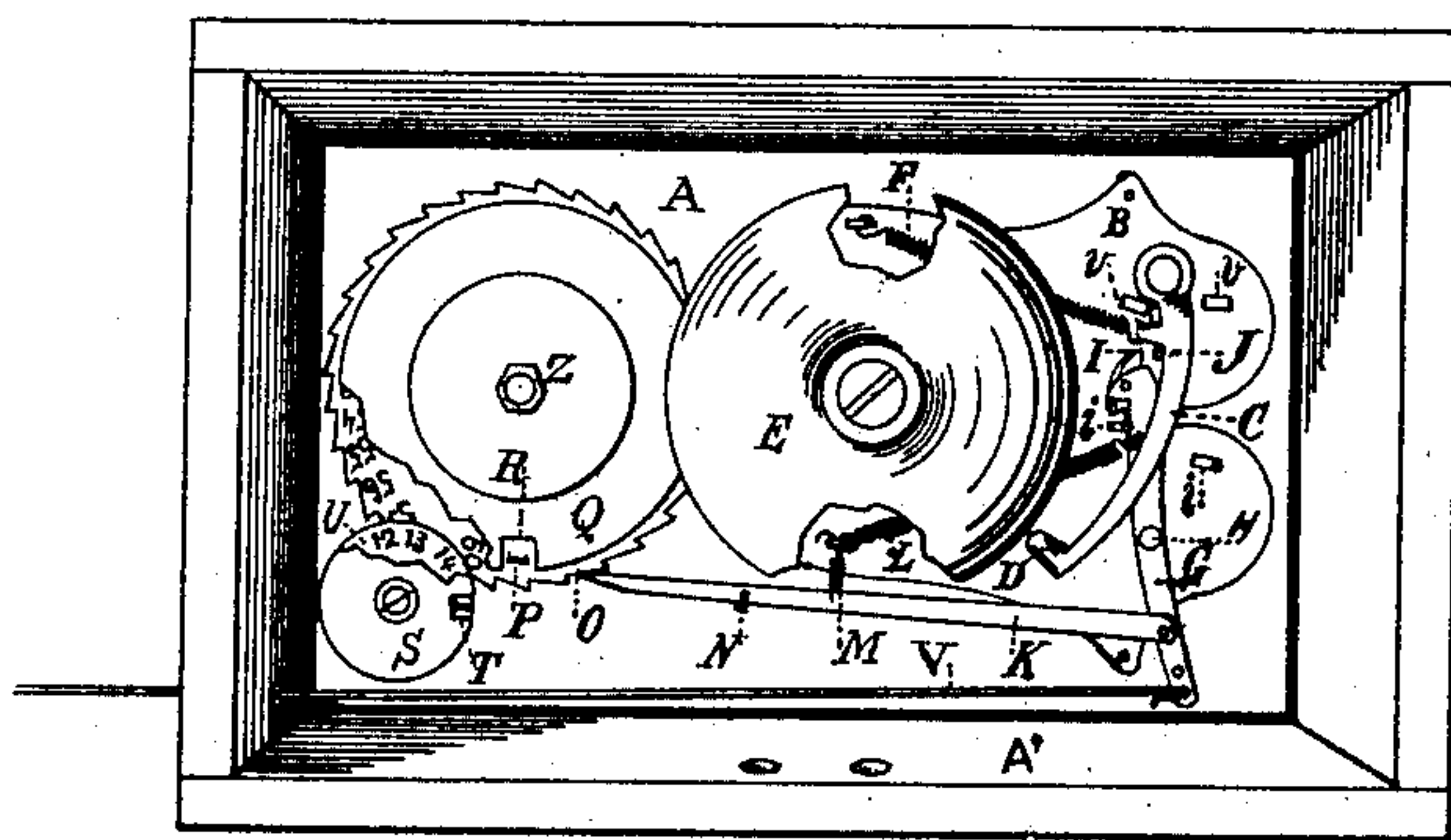


Fig. 1.

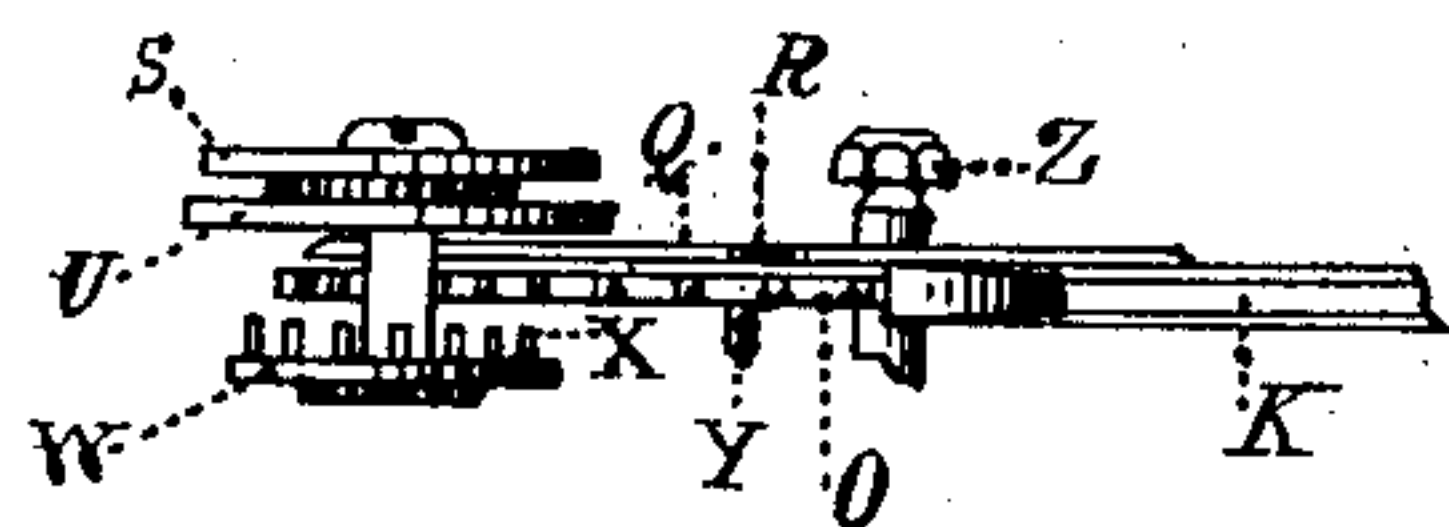


Fig. 2.

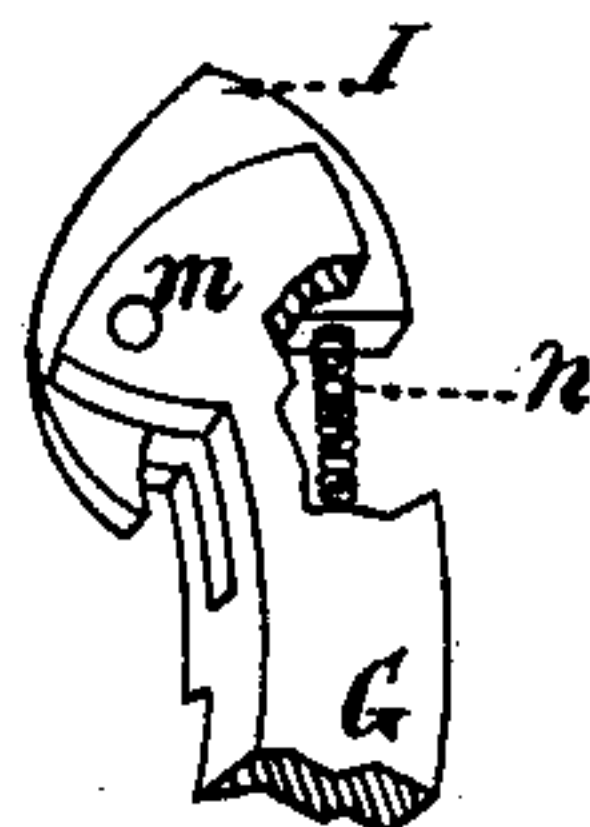


Fig. 3.

Witnesses;  
Geo. H. Shaw.  
H. K. Dunham.

Inventor;  
Wm. Miller,  
Per C. A. Shaw,  
Att'y.

# UNITED STATES PATENT OFFICE.

WILLIAM MILLER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO CHARLES ALBERT SHAW, OF SAME PLACE.

## IMPROVEMENT IN FARE-REGISTERS.

Specification forming part of Letters Patent No. **167,682**, dated September 14, 1875; application filed March 18, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM MILLER, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Fare-Registers, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a plan view; Fig. 2, a sectional view of the multiplying or permutation wheels; and Fig. 3, a sectional view of the escapement-lever.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

My invention relates to that class of fare-registers which are provided with an alarm, and designed for use in horse-cars, omnibuses, &c.; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a simpler, cheaper, and more effective device of this character is produced than is now in ordinary use.

In the drawing, A' represents the case, which is designed to be constructed of metal, and provided with a suitable cover and lock. Within the case there is an ordinary burglar-alarm mechanism, consisting of the bell E striking lever D, springs F L, and escapement-lever G, provided with the tumbling-pawl I, all mounted on the plate B, and for which, in themselves considered, no novelty is claimed. Journaled on the stud z, projecting from the case, there is a toothed ratchet-wheel, O, partially covered by the circular plate Q, which is fixed to the same stud. The wheel is provided around the edge with a series of numbers or figures from 1 to 60, which show in regular succession through the notch R in the plate Q as the wheel is revolved. Projecting from the inner side of the wheel O, near its periphery, there is a stud or pin, Y, which intersects at each revolution of the wheel with one of the pins X on the wheel W, which is also journaled on a stud projecting from the case

near the wheel O. The wheel W is connected by means of a sleeve or box with a circular plate, U, arranged above the plane of the wheel O, in such a manner that both are rotated conjointly. The plate U is provided around its edge with numbers from 0 to 13, after the manner of the wheel O, which numbers may be seen as the plate revolves through the slot T in the fixed disk S, mounted on the same stud with the wheel W. A pull or string, V, passing through the case is attached to the outer end of the lever G, and jointed to the same lever between the string and pawl I there is a pawl, K, working in connection with the wheel O, being kept in contact therewith by the contractile action of the spring M. In the use of my improved register it is placed in any convenient position on or within the vehicle where the fares or tickets are to be registered, the string V being carried within easy reach of the conductor or driver. As each fare is taken, or once for each fare or ticket, the string is pulled, causing the hammer D of the lever C to strike the bell, giving an alarm, and also causing the wheel O to rotate the space of one tooth by means of the pawl K. It will be obvious that the wheel O should have the same number of teeth that it has numbers or figures, and that when it has advanced one entire revolution the pin or stud Y will be brought into contact with one of the pins X, causing the wheel W to rotate a distance equal to the space between any two of the numbers on the plate U, the spaces between the numbers on said plate and the distance between the teeth on the wheel W being coincident. The wheel O is designed to register any number of fares up to sixty, but when, in its rotations, the number 60 appears through the notch R, the pin Y comes into contact with one of the pins X on the wheel W, causing one of the numbers on the plate U to appear through the notch T.

In setting the register for use at the end of the route the wheels should always be left in such a position that the figure 1 will show through the notch R, and the naught (0) through the notch T, then when the figures 60 appear through the notch R as the wheel O advances, the pin Y will move the wheel W



one space, bringing the figure 1 into view through the notch T, and also the figure 1 through the notch R, indicating that 61 fares have been taken. It will be obvious that the number showing through notches T and R, will at any time correctly indicate the number of fares which have been taken during the trip, or the number of times the alarm has been struck. For instance, if the figure 5 on the plate U, and the figures 36 on the wheel O show through the respective notches T R, it will indicate that five times sixty and thirty-six additional fares have been taken—that is to say, three hundred and thirty-six in all.

It will be seen that, instead of the notched plates S Q, index fingers or pointers may be

employed without departing from the spirit of my invention, which,

Having thus described, what I claim is—

In a fare-register, provided with an alarm mechanism arranged to operate substantially as set forth, the numbered ratchet-wheel O, provided with the pin Y, the wheel W, provided with the pins X, the numbered plate U, notched plates S Q, pawl K, cord V, and lever G, combined to operate substantially as and for the purpose specified.

WM. MILLER.

Witnesses:

O. T. GAREY,  
H. K. DUNHAM.