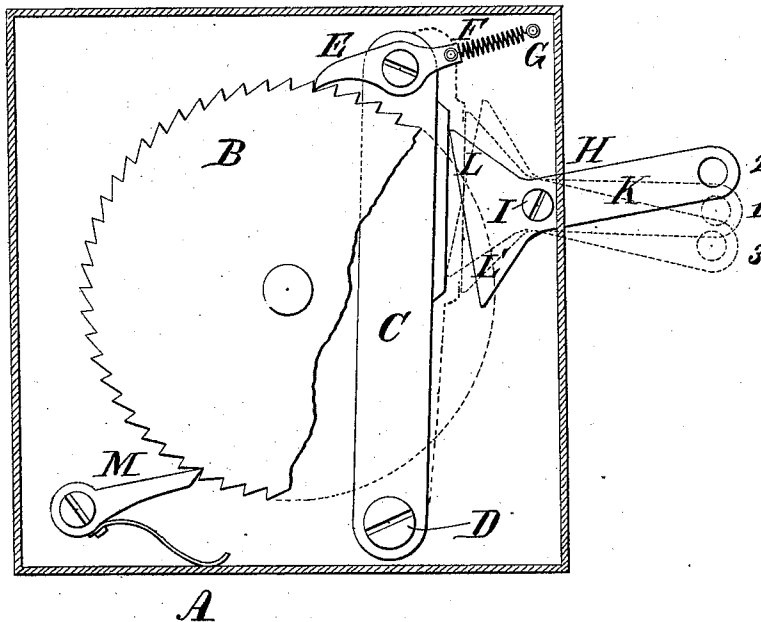


(No Model.)

J. H. ROSE.
FARE REGISTER.

No. 295,201.

Patented Mar. 18, 1884.



WITNESSES
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FARE-REGISTER.

SPECIFICATION forming part of Letters Patent No. 295,201, dated March 18, 1884.

Application filed October 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. ROSE, a citizen of the United States, residing at Norwalk, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in Fare-Registers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which forms a part of the specification.

My invention relates to the class of fare-registers in which a consecutive record is made each day of all of the fares received; and it consists in a combination and arrangement of parts, hereinafter described and claimed.

The drawing is a side elevation of my improved register with the dial removed, and portions broken away to show the internal construction.

The casing A contains the ratchet-wheel B, which turns on suitable bearings, and is connected with the index or dial mechanism in the usual way. A lever, C, of the third kind is fulcrumed on the fixed stud D, and carries at its free end a pawl, E, which is capable of engaging the ratchet-wheel B. The pawl E is prolonged beyond its pivot and connected with one end of a spiral spring, F, the other end of the said spring being fixed to a stud, G, which is slightly above the pivot of the pawl. The spring F is under tension and acts upon the pawl E, holding it into engagement with the ratchet-wheel B, and it also serves to retract the lever C after it has been pushed forward in the operation of the register. A three-arm lever, H, is fulcrumed on a fixed pivot, I, in the case A, with the longer arm K thereof projecting through a slot in the case in position to be grasped by the hand, or to receive a cord or strap to be pulled whenever a fare is to be registered. The shorter arms L L' of the lever H both rest upon the back of the lever C, as shown in position 1, indicated by dotted lines, when the register is at rest. The upward movement of the long arm K of the lever H to position 2 brings the arm L of the said lever into engagement with the lever C, as shown in full lines, and moves it forward sufficiently to cause the pawl E to carry the ratchet-wheel B forward one step, and when the lever H is

released the spring F returns the pawl E and lever C to their original position, with the said lever C pressing on the arms L L' of the lever H, holding the said lever firmly in position 1, as indicated by the dotted lines.

To prevent the retrograde movement of the ratchet-wheel B during the return of the lever C to its normal position, I place a spring-acted detent, M, in the case A in position to engage the teeth of the ratchet-wheel. A downward movement of the arm K of the lever H brings the said lever into position 3, as indicated in dotted lines, and causes the arm L' to push forward the lever C and pawl E, and move the ratchet-wheel B forward one step. It will thus be seen that whether the lever H is moved up or down the effect is to move the ratchet-wheel forward one step for each movement of the said lever. As the lever H is limited in its movement in either direction to a distance only sufficient to permit of moving the ratchet-wheel one step, and as the angular movement of the arms L L' of the lever produces a comparatively slow motion of the lever C, it will be impossible to cause the ratchet-wheel B to move forward more than a single step at a time. The double-acting lever H permits of operating the register from two directions without the necessity of auxiliary levers, pulleys, or other expensive and troublesome connections.

My method of connecting the spiral spring F with the pawl E enables the spring to serve the double purpose of actuating the pawl and of returning the lever C to its normal position. The double-acting lever H requires no spring, as it is brought to its central position by the pressure of the lever C upon either of its arms L L'.

It is a practice prevailing among dishonest car-conductors to tamper with fare-registers, so as to prevent them from performing their functions properly. With the more complicated kinds of registers this is made possible by the multiplication of parts. I have reduced the construction of fare-registers to few, simple, and substantial parts which cannot readily be disarranged; and by removing the pawl-lever C to a point within the casing beyond the circumference of the ratchet-wheel B, and by locating the fulcrum I of the oper-

ating-lever K within the casing, and making the spaces around all these parts large, I have made it impossible for an obstruction to be introduced into the opening above or below the lever K which could stop the action of internal parts; and the said opening in the casing is so large that an object placed therein to prevent the action of the lever K would be at once visible to passengers, and would therefore be impracticable.

I am aware that a step-by-step registering mechanism operated by a double-acting lever through an intermediary spring-arm has been employed in grain-registers.

I am also aware that the use of a spring for the double purpose of operating a pawl, and

of retracting a pawl-lever, is not new. Therefore I do not claim either of these devices, separately; but

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

In a fare-register, the ratchet-wheel B, rigid lever C, pivoted within the casing A and extending along the side of the said ratchet-wheel, the pawl E, spring F, and the T-headed actuating-lever K, having its pivot I wholly within the casing A, all combined and arranged as herein specified.

JOHN H. ROSE.

Witnesses:

C. AUGUSTUS BURGESS,
GEO. M. HOPKINS.