

J. F. OHMER.  
FARE RECORDER.

No. 597,560.

Patented Jan. 18, 1898.

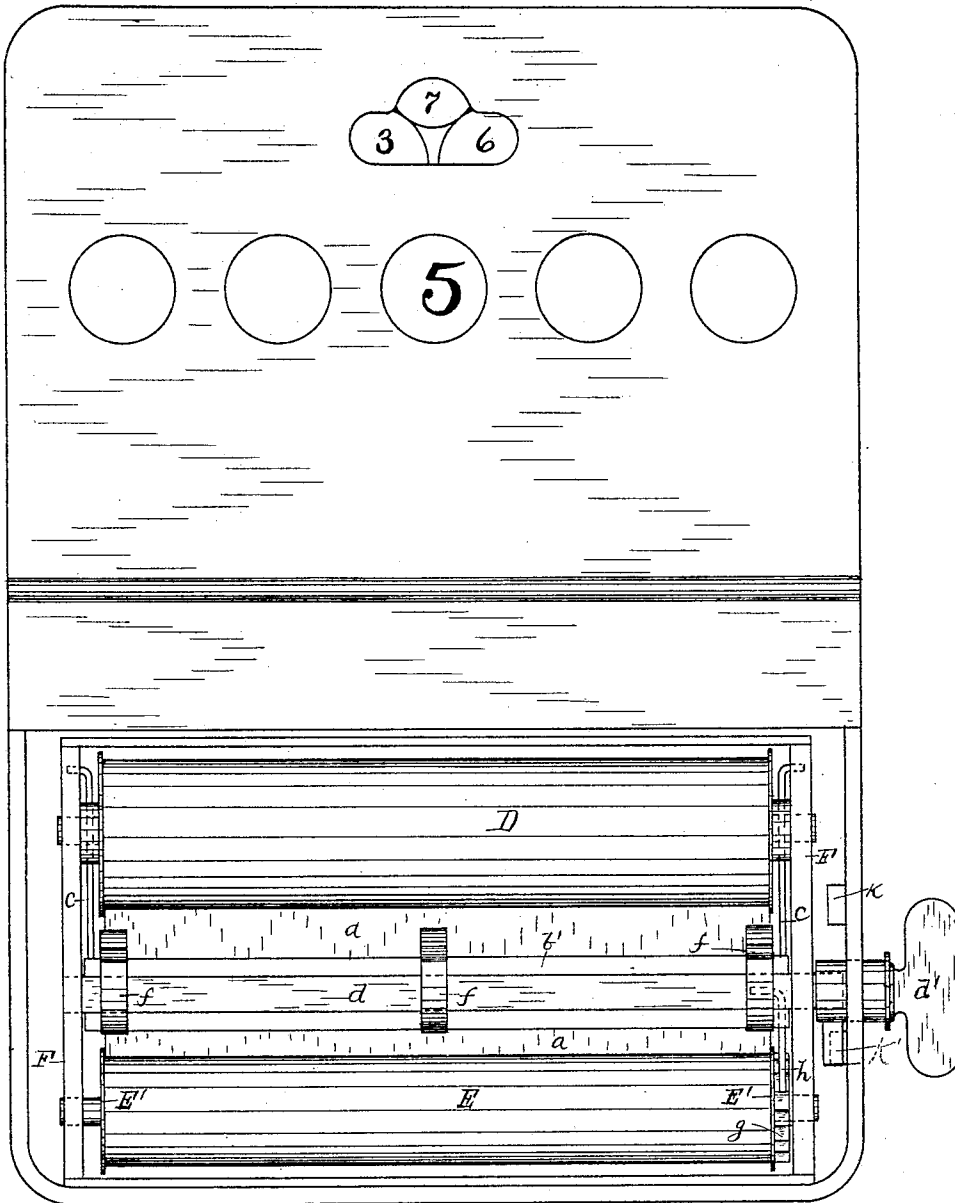


Fig 1.

WITNESSES:

L. L. Allens  
H. H. B. Nevins

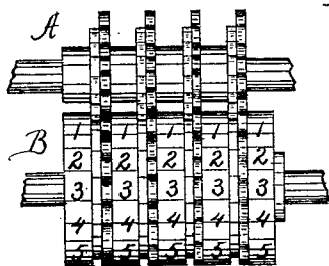


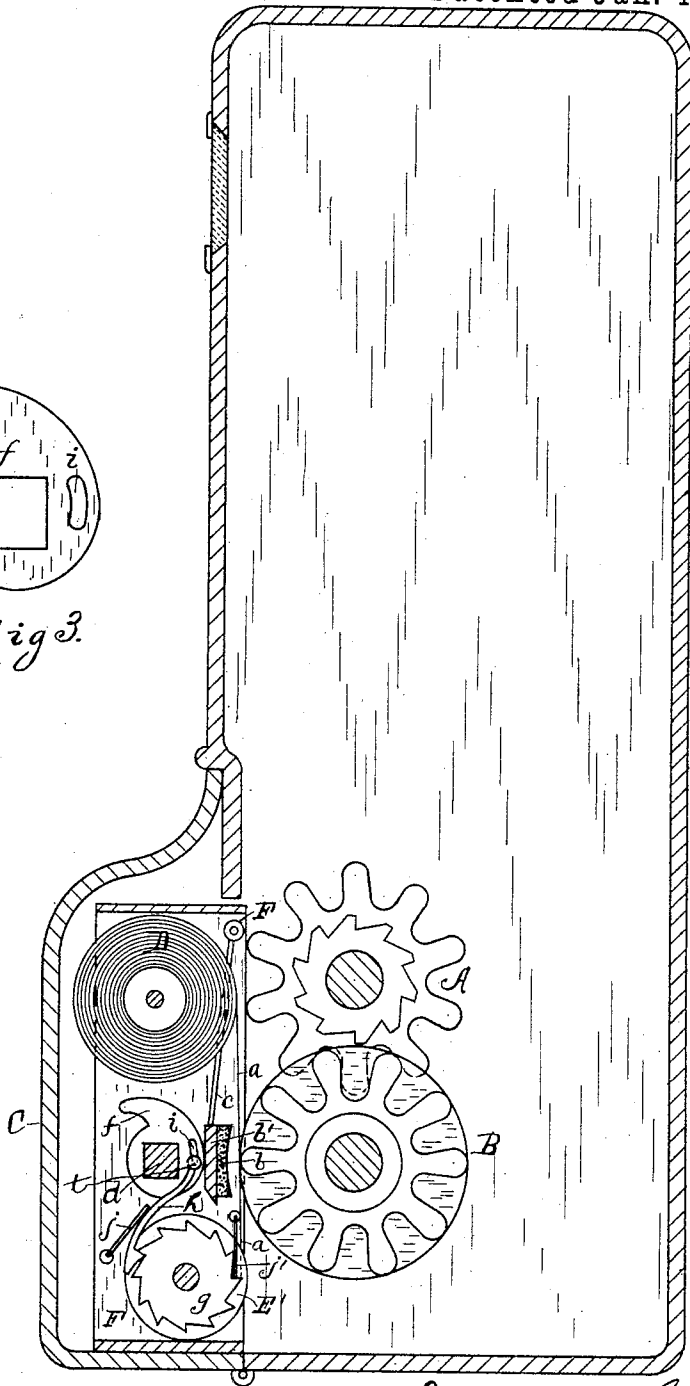
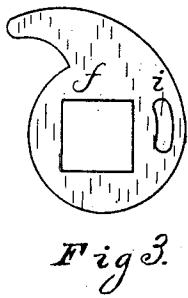
Fig 4.

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INVENTOR:  
By R. J. McCarty.  
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WITNESSES:

*L. L. Allen*  
*H. H. B. Stevin*

*J. F. Ohmer,*  
INVENTOR:

By *R. J. McCarty,*  
his ATTORNEY:

# UNITED STATES PATENT OFFICE.

JOHN F. OHMER, OF DAYTON, OHIO.

## FARE-RECORDER.

SPECIFICATION forming part of Letters Patent No. 597,560, dated January 18, 1898.

Application filed March 1, 1897. Serial No. 625,460. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. OHMER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Fare-Recorders; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention comprises means for taking an impression from the recording-wheels of a street-car fare-recorder.

The invention is designed principally for use in connection with the fare-recorder described in a pending application for Letters Patent, filed by myself and Hiram Tyler August 24, 1896, Serial No. 603,743, and in which separate or classified registrations are kept of the various kinds of fares.

The invention has for its object the provision of means for obtaining an accurate and reliable registration of the figures denoting the number of classified fares that have been registered in a street-car-fare recorder during the time that the car was in the charge of any one particular conductor, so that when a change of conductors is made for any purpose a record of the number of fares registered up to that time may be obtained with little or no trouble, and thus a separate and distinct registration of classified fares taken up by each conductor is had. In the event of a discrepancy occurring between the number of fares turned in at the end of a single trip or at the end of a day and the number registered it is possible to ascertain the conductor in whose charge the car was when the discrepancy arose. For example, in case the regular conductor is relieved for dinner an impression may be made of the wheels to show the number of fares registered up to the time he is relieved. The relief conductor begins his run at the number taken off by the said impression, and when he in turn is relieved the operation is repeated, and a record of each man's fares is thus kept sep-

arate, so that there will be no difficulty in ascertaining the conductor whose fares do not tally with the impression taken from the register-wheels.

To the foregoing ends the invention has reference to parts hereinafter described and claimed. In connection with the description reference is made to the accompanying drawings, of which—

Figure 1 is a front elevation of a fare-recorder having my improved impression mechanism therein, the front of the casing being removed to give a view of the same. Fig. 2 is a side elevation; Fig. 3, an enlarged view of one of the cams; Fig. 4, an elevation of a part of the recorder-wheels.

It has not been deemed necessary to illustrate in the drawings any of the mechanism but that with which the parts comprising my invention cooperate—to wit, the primary and secondary register-wheels A and B, which are of well-known construction and operation. These wheels do not require any further description than to say that the upper or primary wheels A and the lower or secondary wheels B are arranged in corresponding series, and the latter wheels bear upon their peripheries numerals from "0" to "9," each wheel representing a progressive numerical order—to wit, units, tens, hundreds, &c. Each revolution of the wheels A effects a movement of the secondary wheels, to which the transfers are made in a well-known manner.

The door C is hinged at its lower end and supports on its inner side the frame upon which the entire mechanism for obtaining an impression is supported. This mechanism consists of a roll of paper D, the web *a* of which passes downwardly between the peripheries of the register-wheels B, and a pressure-pad *b*, that is attached to the inner face of a transverse bar *b'*. This latter bar *b'* is loosely suspended at each end on rods *c c*, the upper ends of which are journaled in or otherwise loosely attached to the end pieces of the supporting-frame. The lower longitudinal edge of the bar *b'* has a knife-edge. E designates a rewinding-roll having end flanges E'. Upon this roll the paper is rewound from the roll D after each impression is made thereon by being pressed in contact with the periph-

eries of the wheels.  $d$  is a transverse shaft parallel with the bar  $b'$ . The journals of the rolls D and E, the shaft  $d$ , and the upper ends of the rods  $c c$  are mounted on the end pieces F of a frame which is supported in the door C between the end pieces of said door. The said supporting-frame is not attached to the door, and it may be used in a recorder that is provided with a sliding door. It is, however, preferable to hinge the door so that in opening said door the mechanism is lowered to view and the impression made upon the paper is visible without removing any of the mechanism beyond the mere opening and letting down of the door. It is also preferable to employ a frame upon which to mount said mechanism. Upon the shaft  $d$  there are mounted two or more cams  $f$ , one near each end and one or more at intermediate points thereof. These cams are substantially of the shape shown, and when the shaft  $d$  is turned the longer portion of said cams will come against the bar  $b'$  and force the web  $a$  in contact with the peripheries of the register-wheels.

$g$  designates a ratchet-wheel on one end of the shaft of the rewinding-roll E, and  $h$  is a pawl engaging therewith. This pawl has its upper end loosely connected to one of the end cams  $f$  by means of a wrist-pin that projects through an oblong slot  $i$  on the inner side of said cam. The lower portion of the said pawl is maintained in position by being inclosed between one of the flanges  $E'$  and an end F of the supporting-frame.  $j$  is a spring attached to said end piece and pressing said pawl into engagement with the ratchet-wheel  $g$ .

$j'$  is a detent which prevents the rewinding-roll from turning backward.

The movement of the shaft  $d$  is accomplished by a key  $d'$  from the outside of the case. Therefore the case is not opened for this purpose. The movement of the key after it is inserted is limited in either direction by lugs  $k$  and  $k'$  on the inner side of the case, so that an excess of pressure cannot be exerted on the platen  $b$ , and the key may be turned to a position to be readily withdrawn. Upon each inward turn of the shaft  $d$  the cams will be moved, as before stated, into suitable contact with the pressure-bar  $b'$ , and at the same time the pawl  $h$  will be lowered by the slotted cam to effect a new engagement with the teeth on the wheel  $g$ . A return or outward movement of said shaft will move upwardly the said pawl, and thereby the rewinding-roll will be turned a sufficient

distance to present a fresh part of the web  $a$  in a position to receive the next impression.

To remove the roll E from the frame or the roll D, the door C is lowered upon its hinges, and the lower roll removed from its bearings, and the web  $a$  brought against the knife-edge of bar  $b'$ . The impression may be obtained by the use of a carbon-sheet, inking pad or ribbon, or by any of the well-known means for obtaining an impression from raised or sunken letters.

Having fully described my invention, I claim—

1. In a fare-recorder, the combination with register-wheels; a rewinding-roll having a ratchet-wheel thereon; and a transverse pressure-bar adapted to press a web of paper against the peripheries of said wheels; of a parallel shaft; a plurality of cams mounted on said shaft, one of said cams being provided with an oblong slot; a ratchet-pawl loosely mounted in said slot, and engaging with the ratchet-wheel on said rewinding-roll; the said pawl being movable to engage with a lower tooth, simultaneously with the inward movement of the cams, and movable in an opposite direction to turn the rewinding-roll, simultaneously with the outward movement of said cams, substantially as described.

2. In a fare-recorder, the combination with register-wheels; a rewinding-roll having a ratchet-wheel and an adjacent flange thereon; of a transverse pressure-bar suspended in proximity to said wheels and adapted to be moved inwardly to press a web of paper against the peripheries of said wheels; a parallel shaft; a plurality of cams mounted on said shaft, one of which is provided with an oblong slot  $i$ ; a ratchet-pawl having a loose connection with said slot and its lower end engaging with the ratchet-wheel and maintained in such position by the adjacent flange which incloses the outer side of said pawl, substantially as described, whereby the said pawl is movable simultaneously with the cams in one direction to effect a new engagement with the ratchet-wheel, and in another or opposite direction to turn the rewinding-roll, substantially as described.

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

JOHN F. OHMER.

Witnesses:

HIRAM TYLER,  
I. L. ALLEN.