A. K. BAYLOR.

ROUTE OR DESTINATION INDICATOR FOR TRAM CARS OR THE LIKE.

APPLICATION FILED FEB. 20, 1905.

916,256. Patented Mar. 23, 1909.

Fig. 1.

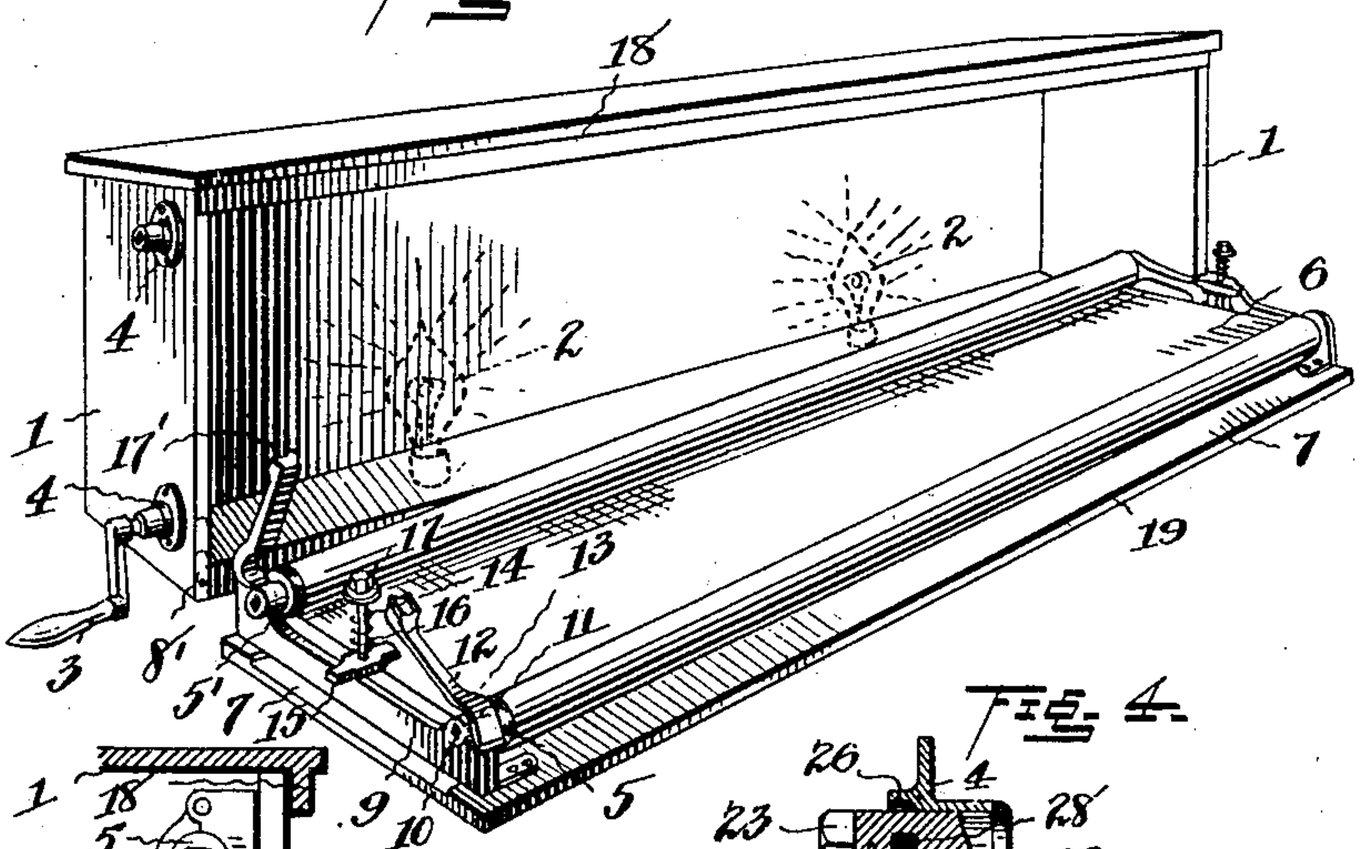


Fig. 2.

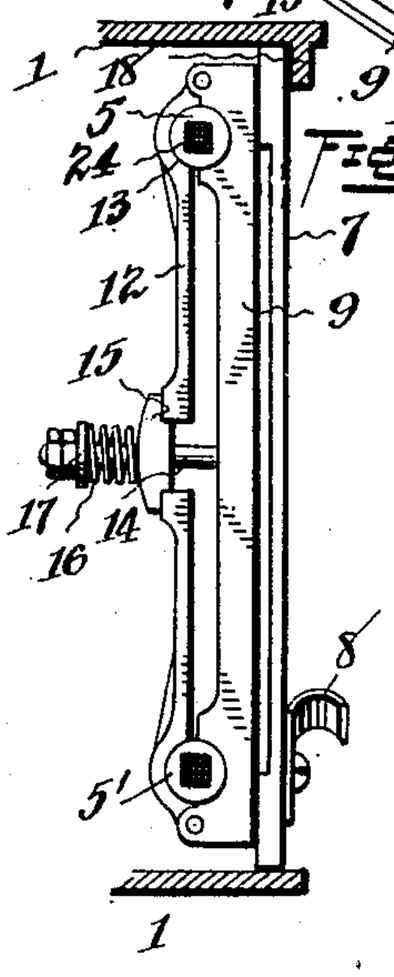


Fig. 4.

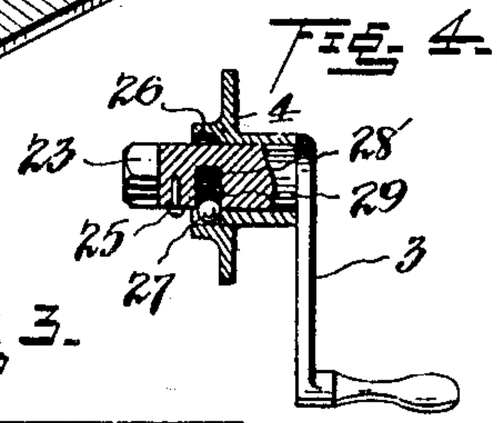
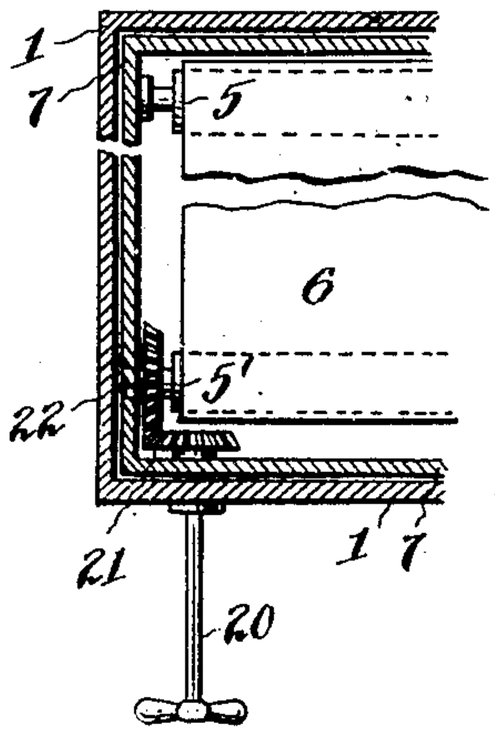


Fig. 3.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ARMISTEAD KEITH BAYLOR, OF LONDON, ENGLAND.

ROUTE OR DESTINATION INDICATOR FOR TRAM-CARS OR THE LIKE.

No. 916,256. Specification of Letters Patent. Patented March 23, 1909.

Application filed February 20, 1905. Serial No. 246,475.

To all whom it may concern:

Be it known that I, ARMISTEAD KEITH BAYLOR, a citizen of the United States, residing in London, England, have invented certain new and useful Improvements in Route or Destination Indicators for Tram-Cars or the Like, of which the following is a specification.

My present invention relates to changeable signs or indicators such as are used on tramcars, railway trains or the like for announcing to prospective passengers and other persons, the destination and the route of the vehicle.

The invention relates particularly to that type of indicator which has as the indicating means a traveling band or screen operated by a pair of rollers.

The object of this invention is to provide a construction which will facilitate the removal and replacement of the curtain and rollers.

I consider that the essential feature of my invention is the construction of the indicator casing in two sections, one of which sections, the main and stationary part, securely fastened to the car, contains the lights for illuminating the screen. The other section is a removable one detachably secured to the main section and contains the roller curtain and rollers for operating the curtain. The rollers are provided with adjustable friction bearings, the construction of which also forms part of the subject-matter of my invention, as do also details of construction contrived in completing my invention, all of which devices will be described hereinafter.

In the accompanying drawings which illustrate an embodiment of my invention, Figure 1 is a perspective view of an indicator constructed in accordance with my invention, the detachable front being shown taken out and dropped down. Fig. 2 is an end elevation of the indicator front with a portion of the stationary part in section. Fig. 3 is a fragmentary sectional view showing one end of an indicator which is intended for use on single deck cars or when the indicator is to be operated from below and Fig. 4 shows a non-detachable handle for operating the curtain rollers.

In the drawings 1 represents the rectangular shaped casing with an open front which I shall term the stationary section. This section is securely attached in a conspicuous place on the vehicle or where desired, usually on tramcars one at each end on top.

2 are lamps for illuminating the screen at night. These lamps (shown in dotted lines) are placed inside the above mentioned section and located so that the best light effect can be obtained, either with or without the aid of reflectors or diffusers. The stationary section may also carry at one end the non-detachable handles 3, or instead, sockets into which may be inserted detachable handles, for the purpose of rotating the rollers 5 and 5′ which carry and operate the roller curtain 6. The removable front section 7 consists of a frame having a glazed opening (not shown) and is adapted to be secured to the stationary section 1 in front of the opening therein, by means of any suitable contrivances, for instance as shown by turn buttons 8 and catches 8′.

The method I have adopted for mounting the curtain rollers in the frame 7 consists of iron cross-pieces 9 secured at each end of the frame. Semi-circular recesses 10 are cut at each end of the cross-pieces 9 and into these recesses are set journals 11 provided on the ends of the rollers. Levers 12 are hinged to the cross-pieces and bent or cast with semi-circular part 13. This bent portion and the semi-circular recess 10, when together, form the bearing for the roller journals. In the center of the cross-piece 9 I fix a stud 14 on which is a flanged piece 15 pressed downwardly by spring 16 surrounding the stud and kept in place by the nut and washer 17 on the end of the stud. When the roller journals are in place in the recesses in the cross-pieces, the levers 12 are pressed downward. The ends of the levers nearly meet when down so the flanged piece 15 can be sprung over both lever ends. The flanged piece, when serving its purpose, is seated in grooves 17′ in the ends of the levers to prevent easy displacement.

It is essential that the bearings of the curtain rollers should offer considerable resistance, because without this resistance the curtain could not be drawn taut unless a special means for retardation is provided. The friction in my improved bearing can be regulated by adjustment of the nut 17 which causes the tension of the spring to be altered.

It is desirable to have the inside of the indicator casing weather-tight, and partially for this purpose the top of the stationary section has depending therefrom a strip 18. The upper edge of the frame 7 fits under the strip 18, thus serving as a means for holding the top of the frame in place and also pre-

venting the rain or snow getting inside the casing.

In Fig. 3 I have shown part of an indicator which is designed for single deck cars or where the indicator is to be operated from below. This construction differs from that previously described only that instead of the operating handles at the side of the casing an operating rod 20 extends downwardly from the bottom of the stationary section 1. On the top end of the rod I secure a bevel gear 21 which is arranged to mesh with gear 22 affixed on the end of the lower curtain roller 5', when the removable front which carries the rollers is placed in position at the front of the stationary section. The lower roller only is rotated by this rod 20, but the upper roller being an ordinary spring curtain roller, the curtain is wound thereon when the lower roller is rotated to unwind the curtain therefrom, the resistance of the friction bearings acting against the pull of the roller spring. When the section carrying the rollers is in position, the square holes in the ends of the rollers are in alinement with the openings in the sockets 4. The shank of the operating crank is inserted in the socket and the square end 23 (Fig. 4) enters the hole 24 in the end of the roller. The curtain rollers can then be rotated and any particular name on the curtain brought before the glazed opening of the frame 7.

The operating crank above described must be taken out when the front is to be removed, but the crank illustrated in Fig. 4 remains fixed to the casing at all times. The socket 4 is screw fastened to the casing and the crank is held therein against complete removal by the stop screw 25 which strikes against the shoulder 26. The crank is shown as being pushed into its socket in its operative position. When the crank is to be disconnected it is pulled out until the stop 25 strikes the shoulder 26. To insure a perfect union connection is made under a spring action which is given by the ball 27 and spring 28 in the recess 29. The ball is forced into the recess and the spring compressed, when the crank is pulled out and if the crank is pushed in far enough, the ball escapes from the recess, when it reaches the shoulder 26. This spring action causes the squared end of the crank to enter the opening in the roller end when their relative position corresponds.

What I claim as new and desire to secure by Letters Patent of the United States, is:—

A route or destination indicator having a pair of rollers, an indicating band which is caused to travel thereby, adjustable bearings for said rollers, said bearings being adapted to be opened and each consisting of a fixed half bearing which receives a roller journal, a hinged clamp or lever carrying the other half bearing arranged to be compressed by an adjustable device which acts as a common compressor for both bearings at one end of the indicator, substantially as described.

In witness whereof I have hereunto set my hand this 11th day of February 1905.

ARMISTEAD KEITH BAYLOR.

Witnesses:

ARNOLD J. TANNER,

JOHN R. HART.