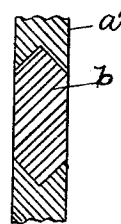
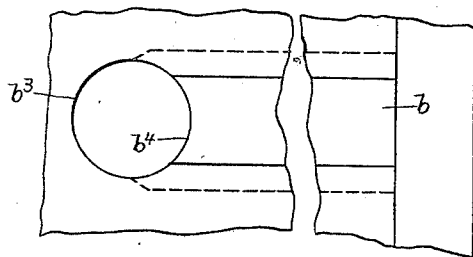
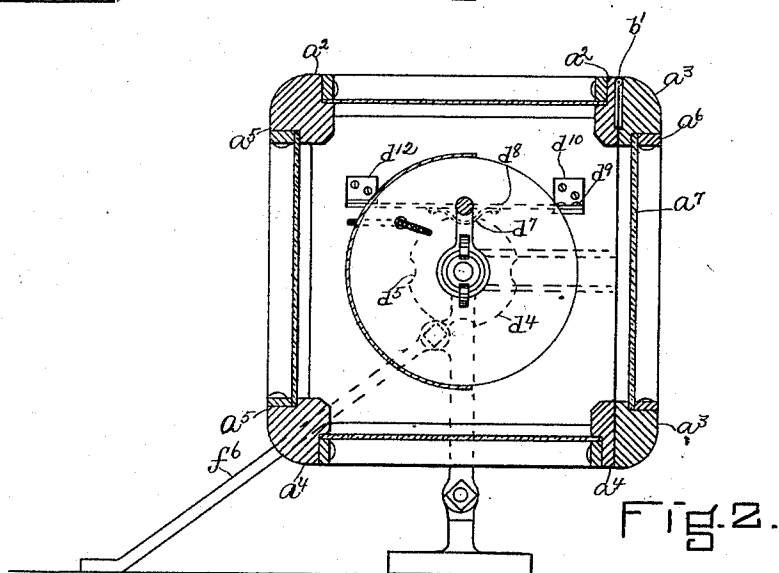
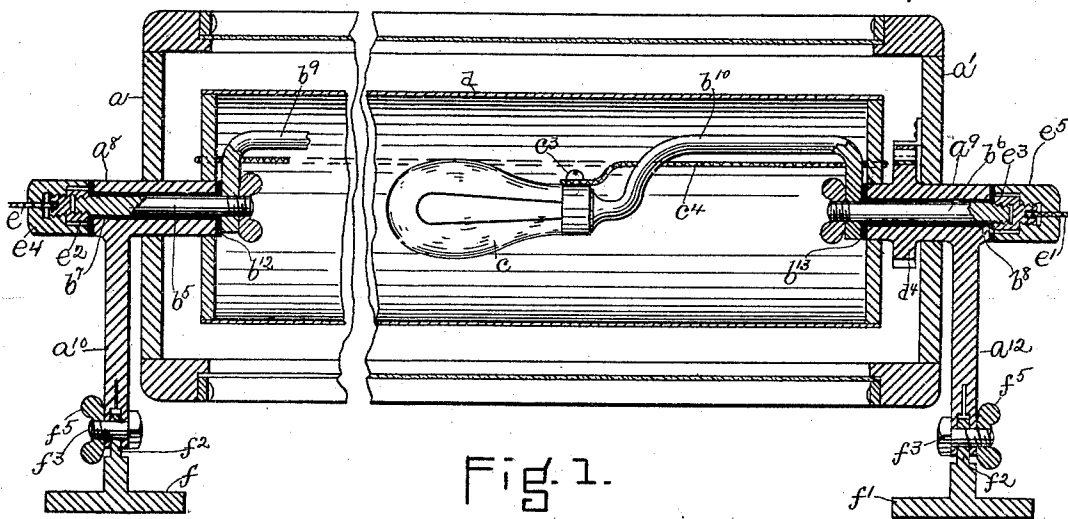


C. BASH.
ROUTE INDICATOR.

Patented Nov. 28, 1893.



WITNESSES.

Matthew M. Blunt.
Joanna Murphy.

Fig. 4.
INVENTOR.

Charles Bash
By Jas. H. Churchill
ATT'Y.

UNITED STATES PATENT OFFICE.

CHARLES BASH, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO
SAMUEL HIPKISS, OF SAME PLACE.

ROUTE-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 509,609, dated November 28, 1893.

Application filed April 5, 1893. Serial No. 469,106. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BASH, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Route-Indicators, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a route indicator or sign especially designed for use on electric street railway cars, and has for its object to provide an efficient, simple, cheap and easily removable route indicator.

In accordance with my invention, the route indicator consists of a hollow box or case loosely mounted on substantially horizontal stationary supports to revolve thereon, and constructed to permit of the hollow box or case being easily and quickly removed from the said supports, the sides of the box or case being suitably marked to indicate the direction of travel of the car on which it is mounted. The hollow box or case normally incloses two incandescent electric lamps, supported, as will be described, from near the opposite ends of the same, the said supports being constructed as will be described to obtain a maximum light effect. The supports for the hollow box or case are preferably made adjustable to enable the route indicator to be readily and correctly mounted on cars having roofs of varying irregularity or pitch. These and other features of my invention will be pointed out in the claims at the end of this specification.

Figure 1, is a longitudinal section of a route indicator embodying my invention; Fig. 2, a transverse section of the indicator shown in Fig. 1 on the line 2—2; Fig. 3, a detail to be referred to, and Fig. 4, a sectional detail on the line 4—4, Fig. 3.

The hollow box or case A, as herein shown, is made oblong in shape and consists of the end pieces a' , and sides a^2 a^3 a^4 a^5 , each of the said sides being preferably made as a frame to which is secured, as by strips a^6 , a pane a^7 of glass or other transparent or translucent material. The pane of glass a^7 of each side of the box or case may be lettered or otherwise marked to indicate a particular destination to which the car travels.

The hollow box or case is loosely mounted on stationary supports herein shown as bosses or arms a^8 a^9 extended from uprights a^{10} a^{12} , into the said box or case the said bosses or arms being preferably cast integral with the said uprights. To permit the hollow box or case A to be removably mounted on the bosses or arms a^8 a^9 , the ends a a' of the said box or case are provided with removable pieces or sections b , represented by dotted lines in Fig. 2, and shown in the section Fig. 4, and one side of the box or case, herein shown as the side a^3 , is made so as to be removed, to permit the pieces or sections b to be withdrawn from the ends a a' of the box or case, when it is desired to remove the said box from its supports a^8 a^9 . The side a^3 is herein shown as hinged, as at b' , to the side a^2 , and when closed, the side a^3 may be secured to the side a^4 by a latch, thumb-screw or other suitable or convenient form of fastening, not herein shown. The removable section or piece b of each end a a' of the box, may be made of various shapes or forms and may be secured in place in a variety of ways, but for simplicity, I prefer to dove-tail the removable section into the sides of the slot or opening in the ends a a' , into which the section b is fitted. The lower portion or bottom b^3 of the slots or openings in the ends a a' of the box, is made round or substantially semi-circular, and the lower end or bottom of the removable sections b , is also made substantially semi-circular, as at b^4 , Fig. 3, so as to form a cylindrical bearing for the box or case upon the bosses or arms a^8 a^9 . The removable sections or pieces b are held in place preferably by the removable side a^3 when the latter is secured to the side a^4 . The bosses or arms a^8 a^9 , as herein shown, are cored to receive conducting rods b^5 b^6 extended through the said bosses and separated from the said bosses by insulating material b^7 b^8 . The conducting rods b^5 b^6 have mounted on their inner ends conducting lamp-supporting arms b^9 b^{10} , separated from the inner ends of the bosses a^8 a^9 by washers b^{12} b^{13} of insulating material and preferably secured on the rods b^5 b^6 in adjusted position by thumb-nuts b^{14} . The conducting arms b^9 , b^{10} are made substantially long, as represented in Fig. 1, so as to bring the in-

candescence lamps *c*, only one of which is shown, nearer the center of the box or case *A*, the said lamps being preferably constructed as herein represented, so that, their sockets may be screwed onto the ends of the arms *b*⁹, *b*¹⁰, one terminal of each lamp being electrically connected to its co-operating conducting arm and the other terminal of the said lamp being connected preferably to a screw or outside terminal *c*³, the screws or terminals *c*³ of the lamps being electrically connected by a wire or other suitable conductor *c*⁴. The lamp supporting arms *b*⁹ *b*¹⁰ are detachable from the conducting rods *b*⁵ *b*⁶ and may be bent into any desired shape or form so as to place the lamps *c* within the box or case to obtain the best possible light effect. The lamps *c* have co-operating with them a reflector *d* preferably secured at its ends to supports shown as disks *d*¹ *d*² secured upon the bosses *a*⁸ *a*⁹ in any desired or suitable manner, the said disks being preferably frictionally held in adjusted position on the bosses, so that, the said reflector may be turned to reflect the light to the best advantage. The reflector is located behind the lamps so as to direct the rays of light toward the front of the indicator. The box or case *A* being loosely mounted on its supports, is free to be revolved and is held in proper position preferably by means of a disk *d*⁴ secured to or forming part of one or both horizontal supports provided with notches or depressions *d*⁵ corresponding in number to the number of sides of the box or case, the said depressions being designed to receive a projection *d*⁷ (see Fig. 2) on the under side of a spring bar *d*⁸ fastened at one end as by screws *d*⁹ to a bracket *d*¹⁰ secured to one end of the box or case, the other end of the spring bar *d*⁸ being extended under a similar bracket or projection *d*¹² secured to the end of the box or case. The brackets *d*¹⁰ *d*¹² are preferably located on the inside of the case or box *A*, and the co-operating notch disk *d*⁴ is so located on the arm or boss *a*⁹, that when the said box or case is fitted on its supporting arms or bosses, the said notched disk will be within the said box or case, whereby the indicator possesses a more finished appearance. The conducting rods *b*⁵ *b*⁶ are electrically connected to the circuit wires *e* *e*¹, preferably by threaded nuts *e*² *e*³, screwed upon the threaded ends of the rods *b*⁵ *b*⁶ and having the circuit wires *e* *e*¹ soldered or otherwise connected to them. The nuts *e*² *e*³ and the connections of the wires *e* *e*¹ thereto are protected by means of caps *e*⁴ *e*⁵ of rubber or other insulating material, preferably screwed upon the threaded outer ends of the nuts *e*² *e*³. The circuit wires *e* *e*¹ in practice may and preferably will form part of the usual circuit in which is located the incandescent electric lamps now commonly employed to light the interior of the car, and in the present instance, the wire *e* may be supposed to be the positive wire and the wire *e*¹ the negative wire, and the circuit through the lamps of the indicator

may be traced as follows, viz:—from the positive wire *e*, by the nut *e*², conducting rod *b*⁵, lamp supporting arm *b*⁹, through the filament of the lamp secured to said arm and not herein shown, thence by the wire *c*⁴ to the screw *c*³ of the lamp *c*, through the filament of lamp *c*, arm *b*¹⁰, rod *b*⁶, and nut *e*³ to the negative wire *e*¹. It will thus be seen that the lamps *c* within the box or case are arranged in series, which permits two lamps of eight candle power to be used without disturbing the arrangement of lights within the car as now commonly used.

In order to enable the indicator to be readily applied to cars having roofs of varying inclination or pitch, and at the same time present the front side or face of the indicator-box or case in a vertical plane, the uprights *a*¹⁰ *a*¹² are made adjustable on bases *f* *f*¹, which is accomplished as herein shown by splitting or otherwise forming the lower ends of the uprights to fit over or receive a projection *f*² on the bases *f* *f*¹, the said uprights and bases being secured together, as herein shown, by means of bolts or screws *f*³ extended through the split portions of the uprights and through the projection *f*² on the bases, and provided with thumb-nuts *f*⁵. The uprights *a*¹⁰ *a*¹² may be strengthened by brace rods *f*⁶, only one of which is shown in Fig. 2, one end of the brace rods being pivotally secured to the uprights and the other end being adapted to be screwed or otherwise clamped to the roof of the car.

I prefer to make the sides of the box of transparent or translucent material, but I do not desire to limit my invention in this respect, as the said sides may be made solid and the letters cut through the same.

I claim—

1. In a route indicator or sign, a hollow box or case mounted at its opposite ends on stationary supports extended into the hollow box or case and upon which the said box or case is loosely mounted to revolve thereon the said hollow box or case being constructed to be removed from said stationary supports, without disturbing the said supports substantially as described.

2. In a route indicator or sign, a hollow box or case, stationary supports extended into the hollow box or case and upon which the said box or case is loosely mounted, removable sections in the ends of the said box to permit the latter to be removed from its supports, substantially as described.

3. In a route indicator or sign, a hollow box or case, stationary supports extended into the hollow box or case and upon which the box or case is removably and loosely mounted thereon, incandescent electric lamps secured to the said supports within the hollow box and a reflector co-operating with the said lamps, substantially as described.

4. In a route indicator or sign, a hollow box or case, stationary supports extended into the hollow box or case and upon which the said box or case is removably and loosely mounted

thereon, uprights to which the said stationary supports are attached, bases to which the uprights are adjustably secured, an incandescent electric lamp supported within the hollow box or case by one of the stationary supports and a reflector co-operating with the said lamp, substantially as described.

5. In a route indicator or sign, a hollow box or case, stationary supports extended into the said hollow box or case upon which the said box is removably and loosely mounted thereon, a notched disk secured to or forming part of one of the said supports, a spring actuated device secured to and movable with the box and engaging a notch in the said disk, and incandescent lamps supported from the stationary supports and normally inclosed by the said box, substantially as described.

6. In a route indicator or sign, a hollow box or case having its ends provided with removable sections *b*, a removable side normally covering said sections, stationary supports upon which the said box is loosely mounted, uprights to which the said supports are attached, conducting rods inserted through holes in the stationary supports and insulated therefrom, conducting lamp-supporting arms detachably secured to said rods, incandescent lamps secured to said arms, and a conductor connecting said lamps, substantially as described.

7. In a route indicator or sign, a hollow box or case having its ends provided with removable sections *b*, a removable side normally covering said sections, stationary supports upon which the said box is loosely mounted, uprights to which the said supports are attached, conducting rods inserted through

holes in the stationary supports and insulated therefrom, conducting lamp-supporting arms detachably secured to said rods, incandescent lamps secured to said arms, and a conductor connecting said lamps, and a reflector co-operating with said lamps, substantially as described.

8. In a route indicator or sign, a hollow box or case having its ends provided with removable sections *b*, a removable side normally covering said sections, stationary supports upon which the said box is loosely mounted, uprights to which the said supports are attached, conducting rods *b*⁵*b*⁶ extended through the said stationary supports and insulated therefrom, an electric conductor connected to each rod at one end, a cap of insulating material protecting the said conductor and end of each rod, conducting lamp supporting arms detachably secured to each of the said rods, incandescent electric lamps secured to said arms, a conductor connecting the said lamps together and a reflector co-operating with the said lamps, substantially as described.

9. In a route indicator or sign, a hollow box or case provided with removable end sections, a removable side or cover normally retaining said end sections in place, and stationary supports extended into the hollow box and with which the said removable end sections co-operate, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES BASH.

Witnesses:

JAS. H. CHURCHILL,
J. MURPHY.