

(No Model.)

E. L. DWYER.  
STREET CAR SIGN.

No. 570,747.

Patented Nov. 3, 1896.

Fig: 1.

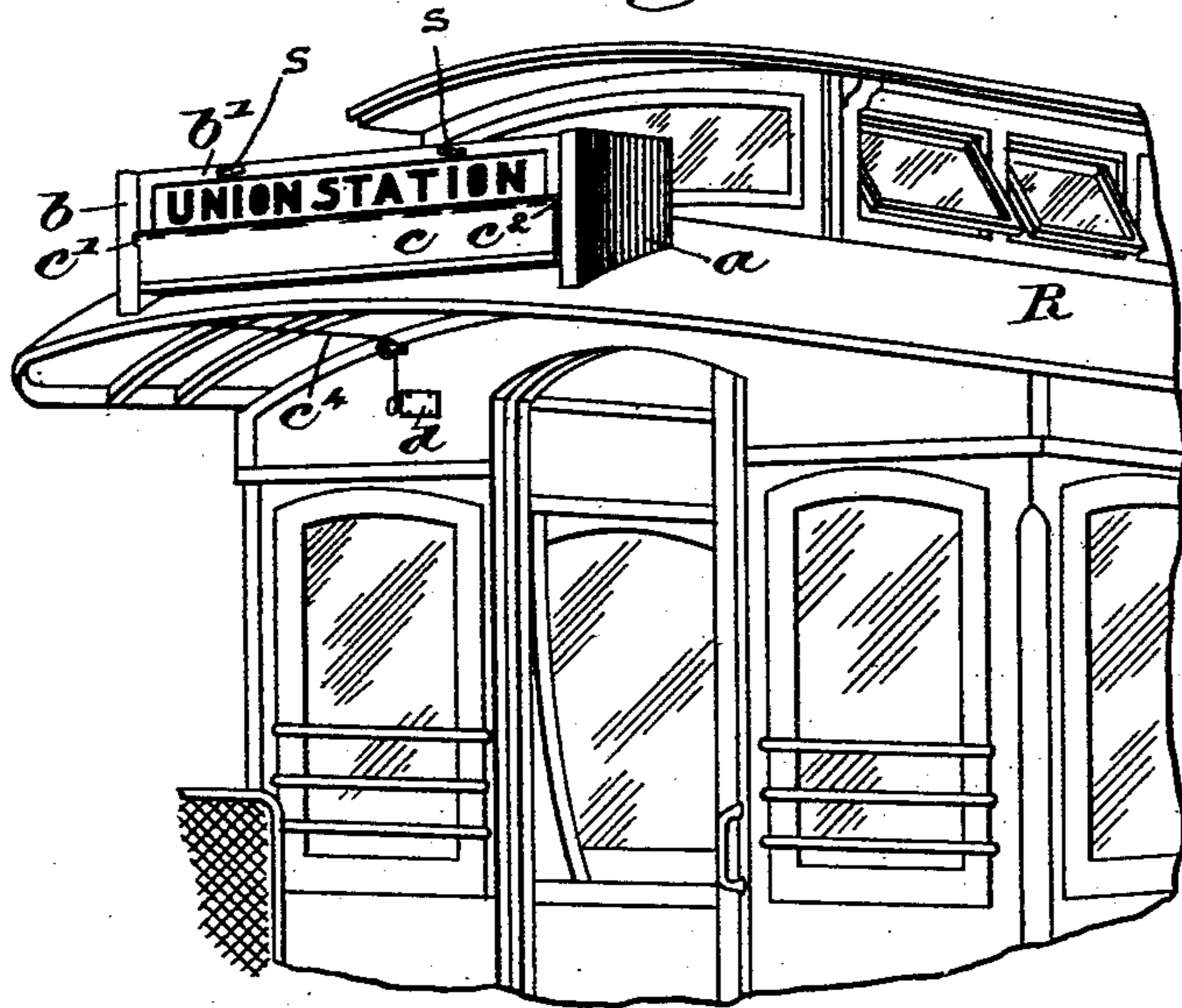


Fig: 2.

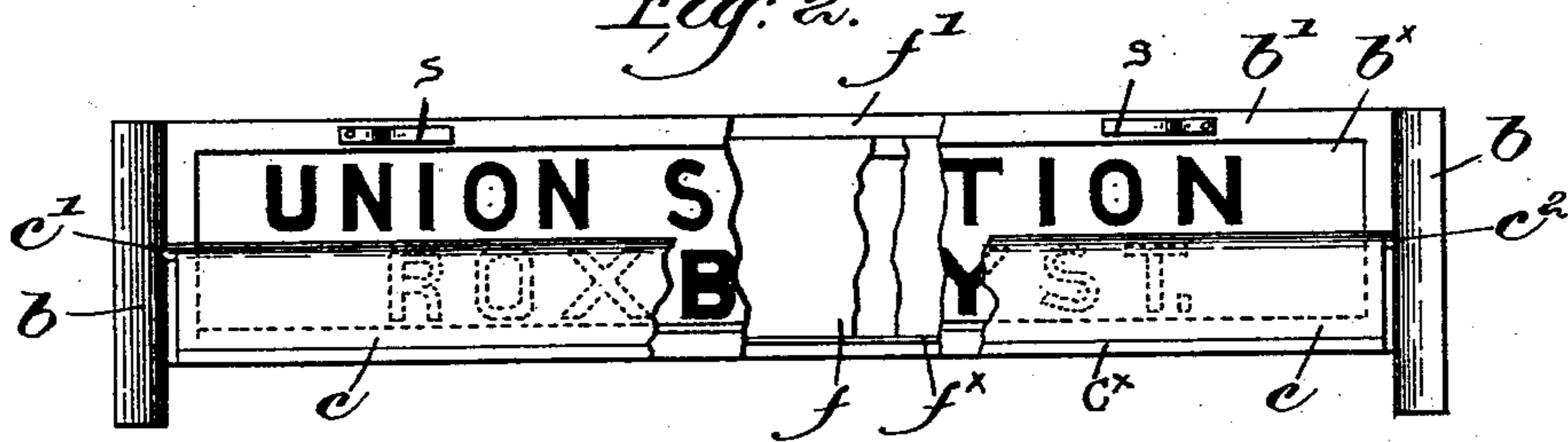


Fig: 3.

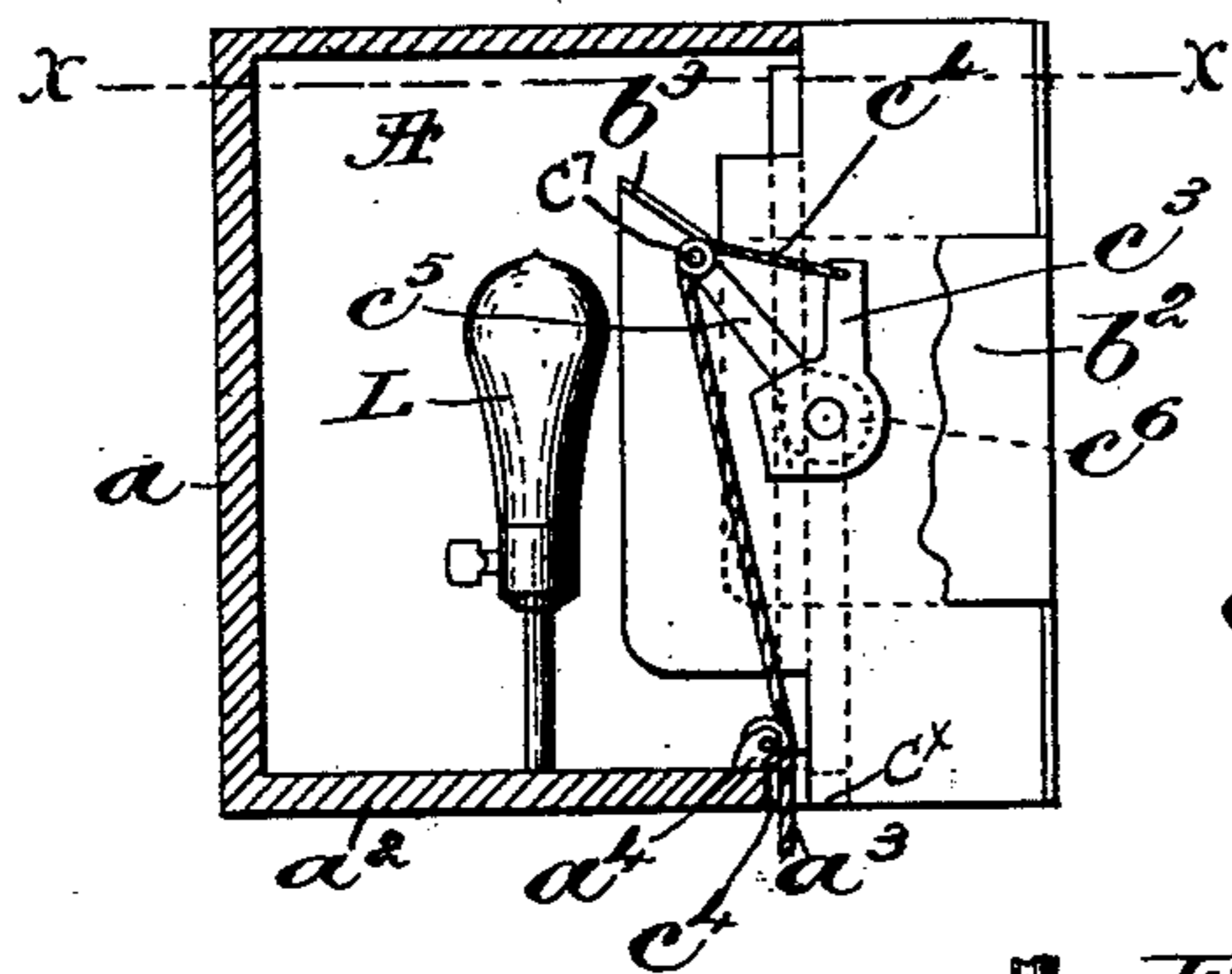


Fig: 4.

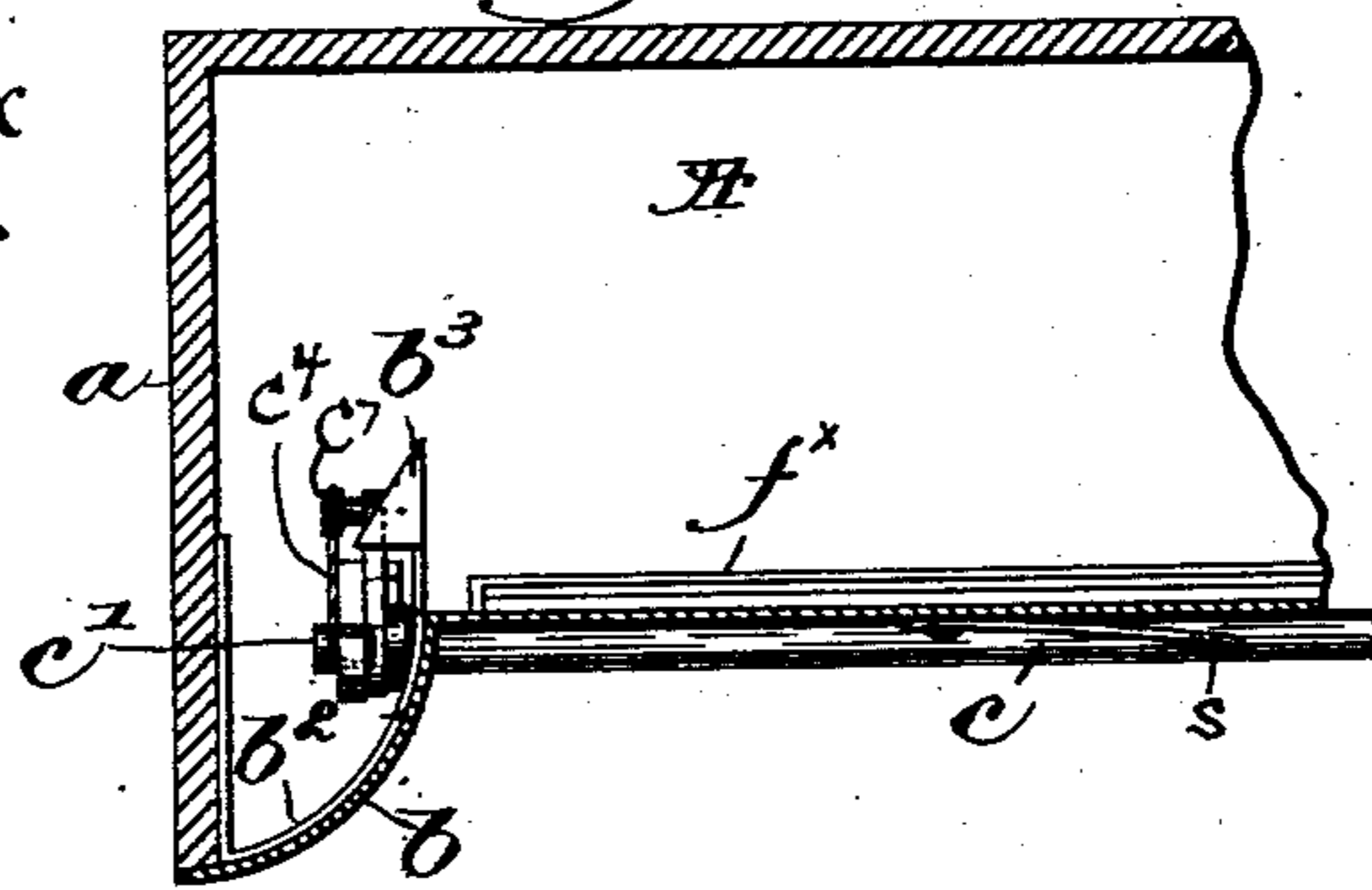
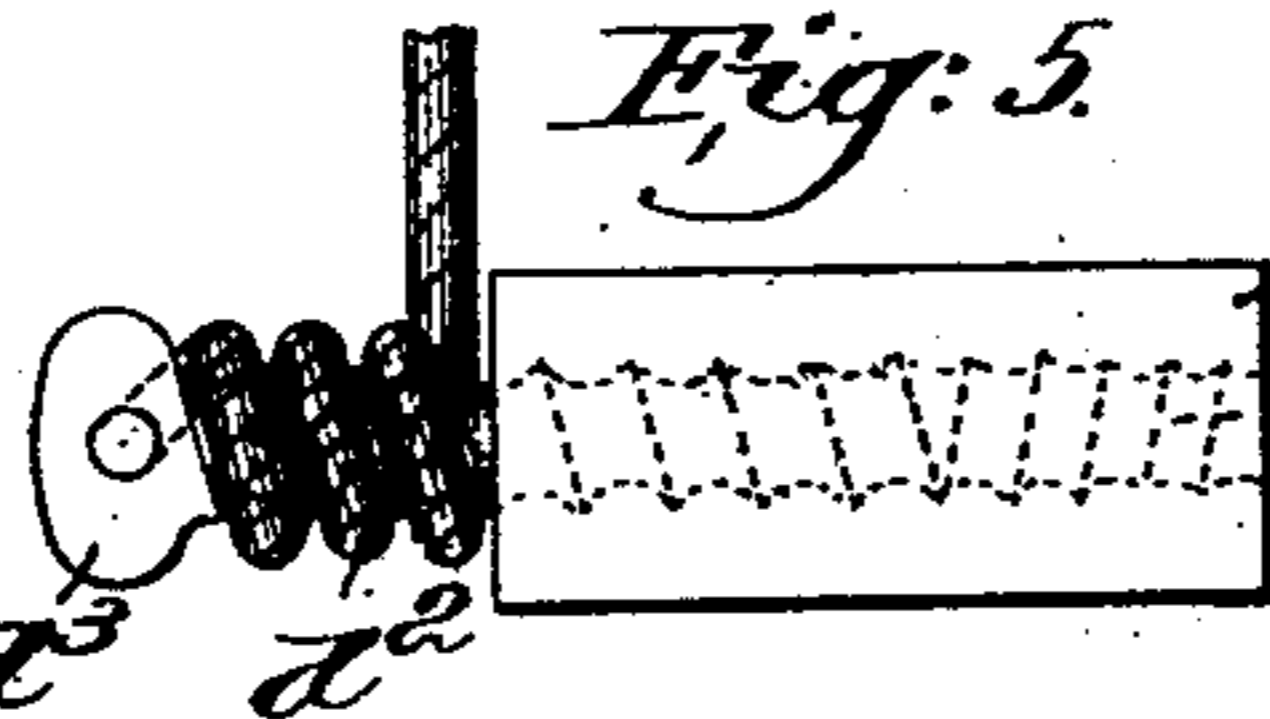


Fig: 5.



Witnesses.

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# UNITED STATES PATENT OFFICE.

EDWARD L. DWYER, OF CAMBRIDGE, MASSACHUSETTS.

## STREET-CAR SIGN.

SPECIFICATION forming part of Letters Patent No. 570,747, dated November 3, 1896.

Application filed April 24, 1896. Serial No. 588,900. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD L. DWYER, of Cambridge, county of Middlesex, and State of Massachusetts, have invented an Improvement in Street-Car Signs, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a novel and efficient street-car sign for day or night use of simple construction and readily operated, whereby the conductor or motorman at the end of the route may without leaving the car set the sign to indicate the destination of the car.

It is now common to provide street-cars with exterior signs, and usually at the sides and ends, on the roof, which are rotated upon a horizontal axis to display the face of the sign having the particular destination painted thereon, the conductor using a stick to poke the sign until it has been properly rotated. This is dangerous for the operator and clumsy at best, and said signs have no means of illumination at night, so that it is difficult for passengers to note the destination of the car until it is close upon them.

My present invention obviates these objectionable features, and I provide a sign which is as readily distinguishable at night as by day.

The various novel features of my invention will be hereinafter described in the specification and particularly pointed out in the claims.

Figure 1 is a perspective view of a sufficient portion of one end of a street-car to be understood with my invention applied thereto. Fig. 2 is a front elevation, partially broken out, of the sign. Fig. 3 is an enlarged transverse sectional view of the sign and case, showing the operating mechanism. Fig. 4 is a horizontal section on the line  $x\ x$ , Fig. 3, looking down, of one end of the case; and Fig. 5 is an enlarged detail view of a part of the operating mechanism.

In Fig. 1 I have shown the sign mounted upon the roof  $R$  of the case, the sign comprising a casing  $A$ , open in front and adapted to receive therein a suitable lamp, an incandescent lamp  $L$  being shown in Fig. 3.

Convexed corner-pieces  $b$ , secured to the

ends  $a$  of the case, support a rectangular frame  $b'$ , carrying a pane of glass  $b^x$ , upon which are painted or formed in opaque letters the names of the two ends of the route, in two horizontal lines, the signs proper occupying the upper and lower halves of the glass.

A shutter or recess  $c$  is provided with journals  $c'$   $c^2$  at its ends, which enter suitable bearings in the corner-pieces  $b$ , the screen turning about a horizontal axis between the two signs, the width of the screen being sufficient to completely cover one or the other sign, according to its position.

The corner-pieces are preferably made in two pieces, the inner piece  $b^2$  of one of the corners being extended inward and overturned at  $b^3$ , Figs. 3 and 4, to form a stop, while the journal  $c'$  of the screen  $c$  is extended through and beyond its bearing in  $b$ . An arm  $c^3$  is rigidly secured to the journal within the corner-piece and extends oppositely to the screen, as shown in Fig. 3, a cord or other flexible actuating device  $c^4$  being attached to the extremity of the arm. A second arm  $c^5$  is loosely mounted on the journal  $c'$  inside of the arm  $c^3$  and is normally held in the position shown in Figs. 3 and 4 by an in-turned lip  $c^6$  on the arm  $c^3$ , forming a stop therefor, the stop  $b^3$  limiting movement of the arm  $c^5$  in the opposite direction.

I prefer to mount a guide-sheave  $c^7$  on the arm  $c^5$  at or near its extremity, over which the flexible connection  $c^4$  passes from the arm  $c^3$  on its way through a suitable opening  $a^3$  in the bottom  $a^2$  of the case  $A$ , said opening also being provided, preferably, with a guide roll or sheave  $a^4$ .

On the vertical wall of the car I mount a combined actuator and detent, consisting of a block  $d$ , of metal or other suitable material, having a suitably-threaded opening  $d'$  thereon (see dotted lines, Fig. 5) to receive snugly the spirally-grooved shank of a stud  $d^2$ , having a head or hand piece  $d^3$ .

The cord  $c^4$  is wound around the shank and secured to its outer end in such manner that the cord will be unwound as stud enters the block  $d$ , and vice versa, the stud fitting so snugly in the block or seat that the friction will hold it from turning unless positively actuated.

When the screen  $c$  is down in the position

shown herein, the stud will be turned into its seat, unwinding the connection  $c^4$ ; but when the stud is rotated to move outward the connection will be wound up, turning the screen  $c$  up to cover the upper sign and expose the lower one. The loose arm  $c^5$  guides the connection  $c^4$  and will turn with the arm  $c^3$  when the latter has been moved through an angle of about forty-five degrees, and in the reverse movement the stop  $b^3$  detains the arm  $c^5$  at the proper time, so that the connection  $c^4$  is always pulled in a direct line.

If desired, the screen  $c$  may be weighted by attaching to its outer edge a strip  $c^x$ , of metal, to assist its return to lower position, and a leaf-spring  $s$  is secured to the front of the frame  $b'$  at its top to engage and be compressed by the screen when raised, the spring expanding, when the connection  $c^4$  is slackened, sufficiently to throw the screen over center.

In order to completely conceal the lamp in the case A without diminishing the brilliancy of the sign and also to bring out the lettering with greater clearness, I insert a backing  $f$  in suitable guides  $f^x$  behind the glass  $b^x$ , said backing consisting, preferably, of a sheet of thin starched white linen tightly stretched on a frame  $f'$ . This backing is much more effective than ground glass in concealing the lamp, and it also gives greater brilliance and prominence to the lettering of the signs and in the daylight forms a clear white ground therefor.

My invention is not restricted to the precise construction and arrangement herein shown, as the same may be modified in various details without departing from my invention.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A sign for street-cars and the like, comprising a case having fixed upon its front a plurality of destination-signs thereon one above the other, a screen pivoted between said signs and adapted to cover one or the other, and means to move the screen to conceal one of the signs at a time, substantially as described.

2. In an apparatus of the class described, a

case having a front of glass, upon which two destination-signs are fixed, one above the other, a screen pivoted centrally between and to conceal one or the other sign, means to operate the screen, and a translucent backing located behind the glass, substantially as described.

3. In an apparatus of the class described, a case having an open front, convex corner-pieces secured to the ends of the case and supporting a transparent sign-plate, upon which are indicated the route-terminals, a translucent backing of starched linen located behind the sign-plate, a screen horizontally pivoted in the corner-pieces, and means to swing the screen to cover one or other of the terminal-signs, substantially as described.

4. In an apparatus of the class described, a fixed sign-plate having the route-terminals displayed thereupon, a screen pivoted between said terminal-signs, to cover one or the other, a rigid arm on one of the journals of the screen, a flexible connection attached thereto, and a guide-arm for said connection, mounted loosely on the journal, whereby a pull on the flexible connection will raise the screen, substantially as described.

5. In an apparatus of the class described, a sign-plate having the route-terminals displayed thereon, a pivotally-mounted screen to conceal one or other sign, a spirally-grooved stud, its seat, and a flexible connection attached to the screen and to the stud, whereby rotation of the latter into its seat will unwind said connection, and vice versa, to lower or raise the screen, substantially as described.

6. In an apparatus of the class described, a fixed sign-plate, a screen pivoted in front thereof, means to raise the screen, and a spring on the upper part of the sign-plate, to engage and throw the said screen over center when released, substantially as described.

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

EDWARD L. DWYER.

Witnesses:

JOHN C. EDWARDS,  
AUGUSTA E. DEAN.