

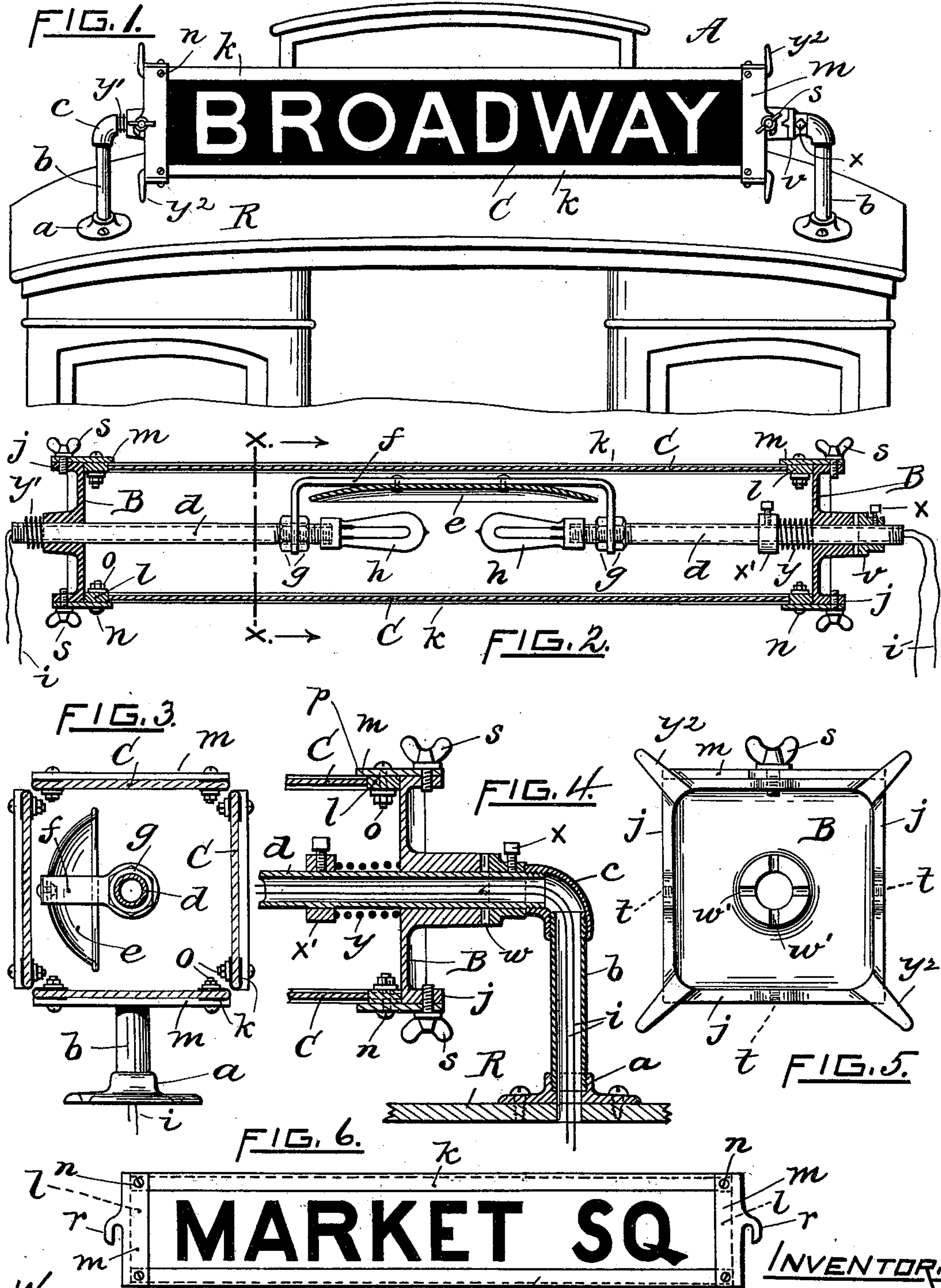
No. 631,700.

Patented Aug. 22, 1899.

E. E. DODGE.
ILLUMINATED STREET CAR SIGN.

(Application filed June 8, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

EDWARD E. DODGE, OF PROVIDENCE, RHODE ISLAND.

ILLUMINATED STREET-CAR SIGN.

SPECIFICATION forming part of Letters Patent No. 631,700, dated August 22, 1899.

Application filed June 8, 1899. Serial No. 719,841. (No model.)

To all whom it may concern:

Be it known that I, EDWARD E. DODGE, a citizen of the United States of America, and a resident of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Illuminated Street-Car Signs, of which the following is a specification.

My invention relates to the novel construction of an indicator to be attached upon the roof of electric trolley-cars.

It consists of the combination, with a car, of vertical pipes or standards secured to the roof of the car, an elbow connected at the upper end of said pipes, with inwardly-extending pipes from said elbows, a bracket having its ends bent at a right angle and provided with a circular orifice at each extremity thereof, said bracket adjustably mounted upon the said extending pipes through said orifices, a reflector attached to said bracket, electric lamps fastened to the inner ends of said extending pipes, a rectangular rotatable end piece mounted upon said extending pipes and close to the said standards, an indicator-sign adjustably secured upon each face of the said end pieces, an adjustable clutch-sleeve mounted upon one of said extending pipes, between said end piece and said elbow, a coil-spring surrounding the said extending pipe to bear against the inner side of said end piece, an adjustable collar mounted upon the said pipe at the opposite end of said spring, with a coil-spring situated between the opposite end piece and elbow, respectively, and surrounding the extending pipe, as hereinafter described and claimed.

In the accompanying sheet of drawings, Figure 1 represents a longitudinal elevation of the sign as attached to the roof of a car. Fig. 2 is a top plan longitudinal section of the sign. Fig. 3 is an enlarged transverse section taken in line *xx* of the same. Fig. 4 is a central longitudinal section of one end portion of the indicator, showing the clutch or locking device and manner of clamping the sign-frames to the end piece. Fig. 5 is a front end elevation of the end piece with one sign as clamped thereon. Fig. 6 is a front elevation of one of the indicator-signs.

Similar letters of reference correspond to like parts in the drawings.

R designates the roof of the car, upon which are secured flange-steps *a*, provided with a centrally-circular screw-threaded aperture which receives the vertical pipes or standards *b*, having circumferentially-screw-threaded ends at their top portion to receive an elbow *c*, with inwardly-extending pipes *d* from said elbow and circumferentially screw-threaded at either end thereof, all this material consisting of the ordinary gas pipe and fitting construction.

A reflector *e* is attached to a bracket *f*, extending parallel with the pipes *d*, said bracket having its end portions bent at a right angle and provided with a centrally-circular orifice at each extremity thereof. This bracket is secured in a fixed position upon the inner screw-threaded ends of the pipes *d*, which pass through said orifices, by the check-nuts *g*, and the bracket not only supports the reflector, but also retains the pipes *d* in alignment with each other. Incandescent electric lamps *h h* are fastened upon the projecting ends of the said pipes and within the offset formed by the bracket *f*, said lamps receiving the electric current by means of the car-motor through the conductor *i*, which passes through the piping heretofore described to the shank-socket of the lamps.

A is the indicator, mounted and rotatable upon the horizontal pipes *d*, and is constructed as follows: Rectangular end pieces *B*, having a centrally-located hub provided with a circular aperture, are mounted upon the said pipes close to the standards. Said end pieces have an outwardly-projecting flange *j* formed around the four edges thereof and giving a flat surface, upon which the destination-signs are attached.

C is the glass sign, lettered and colored to suit that of the route over which the car is passing and having its longitudinal edges overlapped by a metallic strip *K* of a U shape form in cross-section. (See Fig. 3.) Said strip projects beyond the ends of the glass, and between the projected ends of the said strips thin wooden strips *l* are located and border the end edges of the glass, and a

flat metal strip *m*, rectangular in form and provided with a circular aperture at each end thereof, is placed transversely upon the said wood strips, and the aforesaid strips forming the frame of the sign are connected together by the screw-threaded bolts *n*, which pass through the orifices in the strip *m* and project through the wood strip, where the parts are secured by the nut *o*, as shown.

The metal strip *m* is made somewhat wider than the wood strip, so that when in place the end edges of the glass will be overlapped, as at *p*, with the opposite edge of the said strip projecting from the wood equal to the width of the flat faces *j* of the end piece B in the manner as illustrated in Fig. 4.

A hook *r* is formed on the outer edge of the metal strip *m* of the frame and longitudinally central therewith, as shown in Fig. 6.

Four signs of the above construction are located on the end pieces B, with the outer longitudinal edges of the wood strips *l* abutting the sides of the same and forming a hollow rectangular box surrounding the lamps. Each of the indicator-signs is held in position upon the end pieces by the clamping thumb-screws *s*, which enter the hook *r* and centrally screw-threaded aperture *t*, formed in the flanges *j* of the end pieces B. (See Fig. 5.)

To control the rotating movement of the indicator, I provide a circular flanged sleeve *v*, mounted upon the pipe *d* at one end of the indicator and interposed between the hub of the end piece and elbow, respectively. Said sleeve is provided with four lugs *w*, formed on the face of its circular flange and equidistant from each other. Said lugs enter the grooves *w'* made in the face of the said end piece, as seen in Fig. 5. This sleeve *v* is adjustable on the pipe *d* by the set-screw *x*.

Referring to Fig. 4, *x'* represents a collar mounted upon the pipe *d* and provided with a set-screw for giving adjustment to the same. *y* is a coil-spring surrounding the said pipe and interposed between the said collar and end piece, respectively, for the purpose of actuating the said end piece to engage the clutch-sleeve *v*. I provide another coil-spring *y'* at the opposite end of the indicator and interposed between the elbow and end piece, respectively, and surrounding the pipe *d* for the purpose of allowing an end movement of the indicator during the time the clutch is disengaged and the indicator is rotated by the operator. Upon the outer side of the end pieces B and integral therewith arms *y*² extend diagonally from each corner thereof, whereby the motorman can by use of the switch-bar as carried on the dash of the car very readily reach the said arms and rotate the indicator in the desired position to give the route or terminal of the car.

By my arrangement it will be observed that the destination-signs can be quickly changed or attached to each of the four sides or faces

of the end pieces, and at the same time the face of the front sign to be displayed can be brought to any angle by simply rotating the clutch-sleeve *v* and tightening up the set-screw of the same to the pipe *d*.

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

1. In a street-car sign, the combination consisting of the hollow upright standards provided at their upper ends with inwardly-extending hollow pipes, a bracket mounted upon the inner end portions of said extending pipes and having an offset therein, a reflector attached to said bracket within the said offset, an end piece mounted and rotatable upon each of the said inwardly-extending pipes and close to the standards, said end piece of a rectangular form and having an outer projecting flange around the four sides thereof and provided with a centrally-located screw-threaded opening, a thumb-screw located in each of said flanges through said openings, a glass sign provided with a suitable metallic frame having a hook formed on either end thereof adapted to catch upon the said thumb-screws and clamped by the same to each of the four faces of the end pieces, a sleeve mounted upon the inwardly-extending pipe between the standard and end piece, respectively, and having a circular flange formed thereon with projecting lugs extending radially to the axial center of said sleeve, said lugs adapted to enter grooves formed in the end piece, a set-screw in said sleeve for adjusting the same to the pipe, an adjustable collar mounted upon the pipe near the inner face of the said end piece, with a coil-spring surrounding the pipe between said collar and end piece, as shown and described.

2. The combination with a street-car, of the standards secured to the roof of the car, elbows secured to the top portion of said standards, inwardly-extending pipes from said elbows and provided with circumferentially screw-threaded ends, a bracket extending parallel with said pipes and having its ends bent to a right angle with an orifice in each extremity thereof, said bracket mounted upon the screw-threaded portions of said pipes through said orifices, with means to secure the bracket in position, a reflector attached to said bracket within the offset formed by the same, electric lamps secured upon the projecting ends of said pipes with a conductor-wire leading therefrom and through the pipes as described, end pieces mounted and rotatable upon the horizontal pipes, close to the standards, and having outer projecting flanges extending around the four sides thereof, said end pieces provided with a centrally-located screw-threaded opening formed in each of the sides, with a thumb-screw in each of said openings, glass signs provided with suitable metallic frames extending between each of the sides of said end pieces having a hook

formed on each end thereof to close around
said thumb-screws whereby the latter secure
the sign firmly in place, a circular flanged
sleeve mounted upon the horizontal pipe, be-
5 tween the elbow and end piece, respectively,
with lugs formed on the flange of said sleeve
adapted to enter grooves in the said end piece,
said sleeve provided with a set-screw for ad-
justing the same to the pipe, a collar mounted
10 and secured upon said pipe near the inner
face of said end piece, with a coil-spring in-

terposed between said collar and end piece
and surrounding the pipe adapted to bear
against the end piece and engage the lugs of
the sleeve, as shown and described.

Signed by me at Providence, Rhode Island,
this 7th day of June, A. D. 1899.

EDWARD E. DODGE.

Witnesses:

AUGUSTUS S. MILLER,
THOMAS A. CARROLL.