

J. D. BROWNE.
SIGN FOR CARS.

No. 581,508.

Patented Apr. 27, 1897.

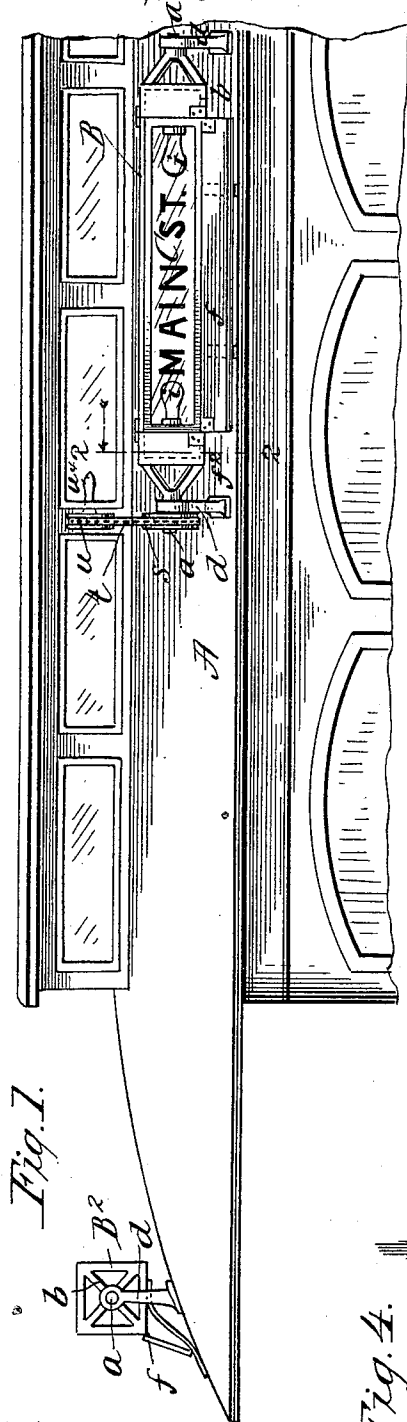


Fig. 1.

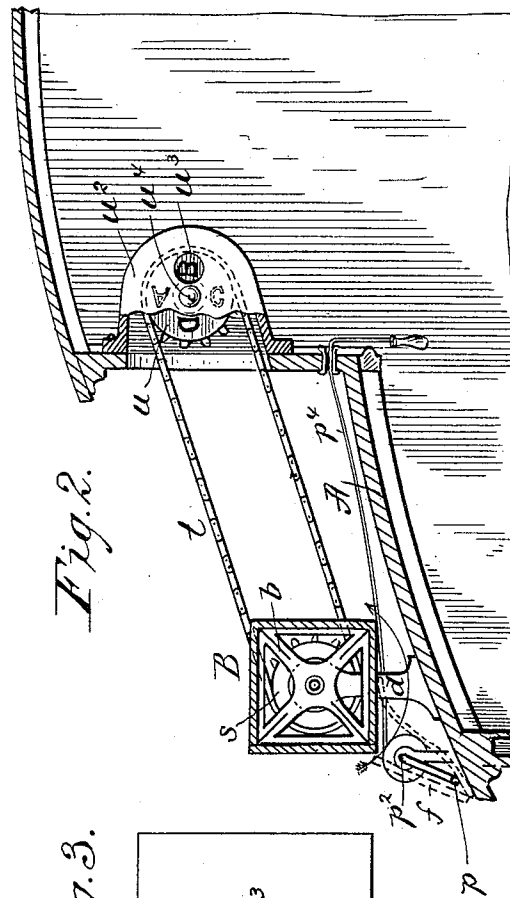


Fig. 2.

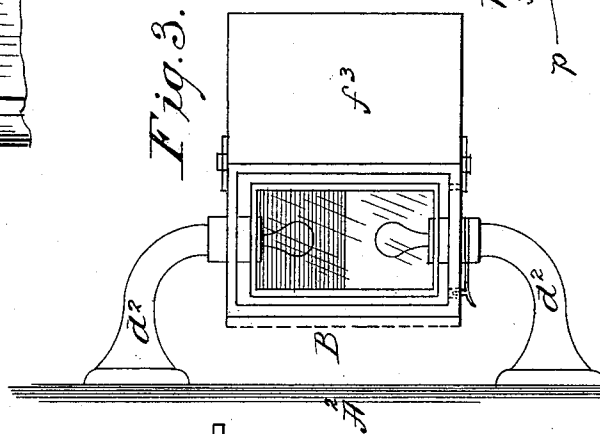


Fig. 3.

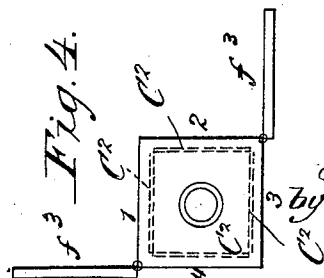


Fig. 4.

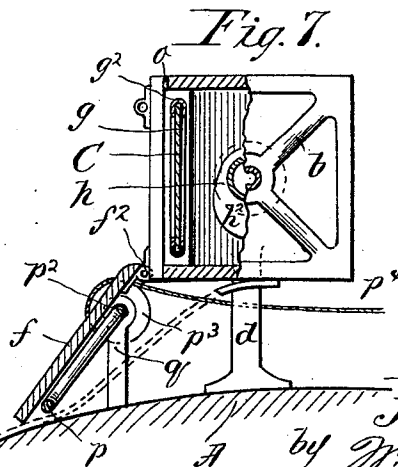
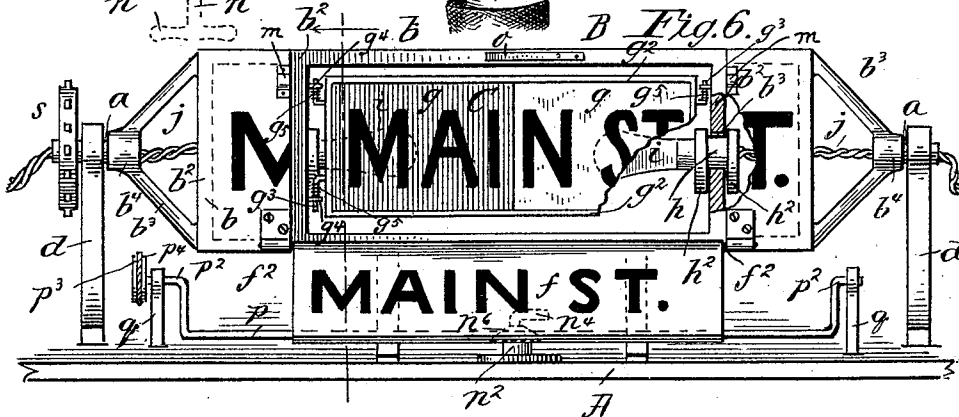
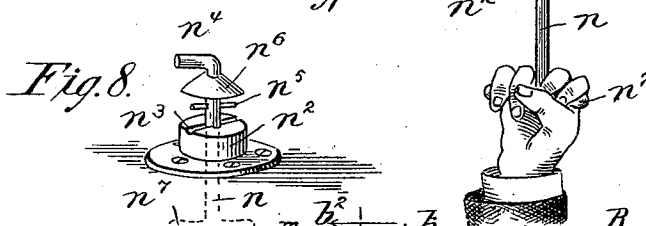
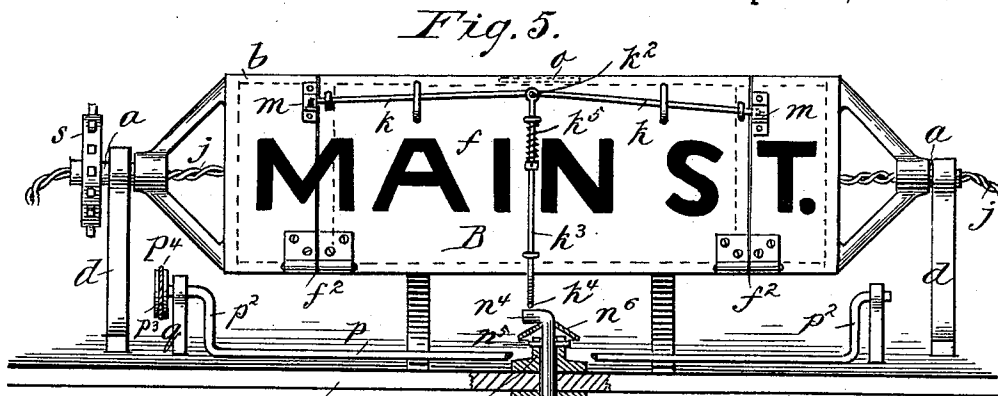
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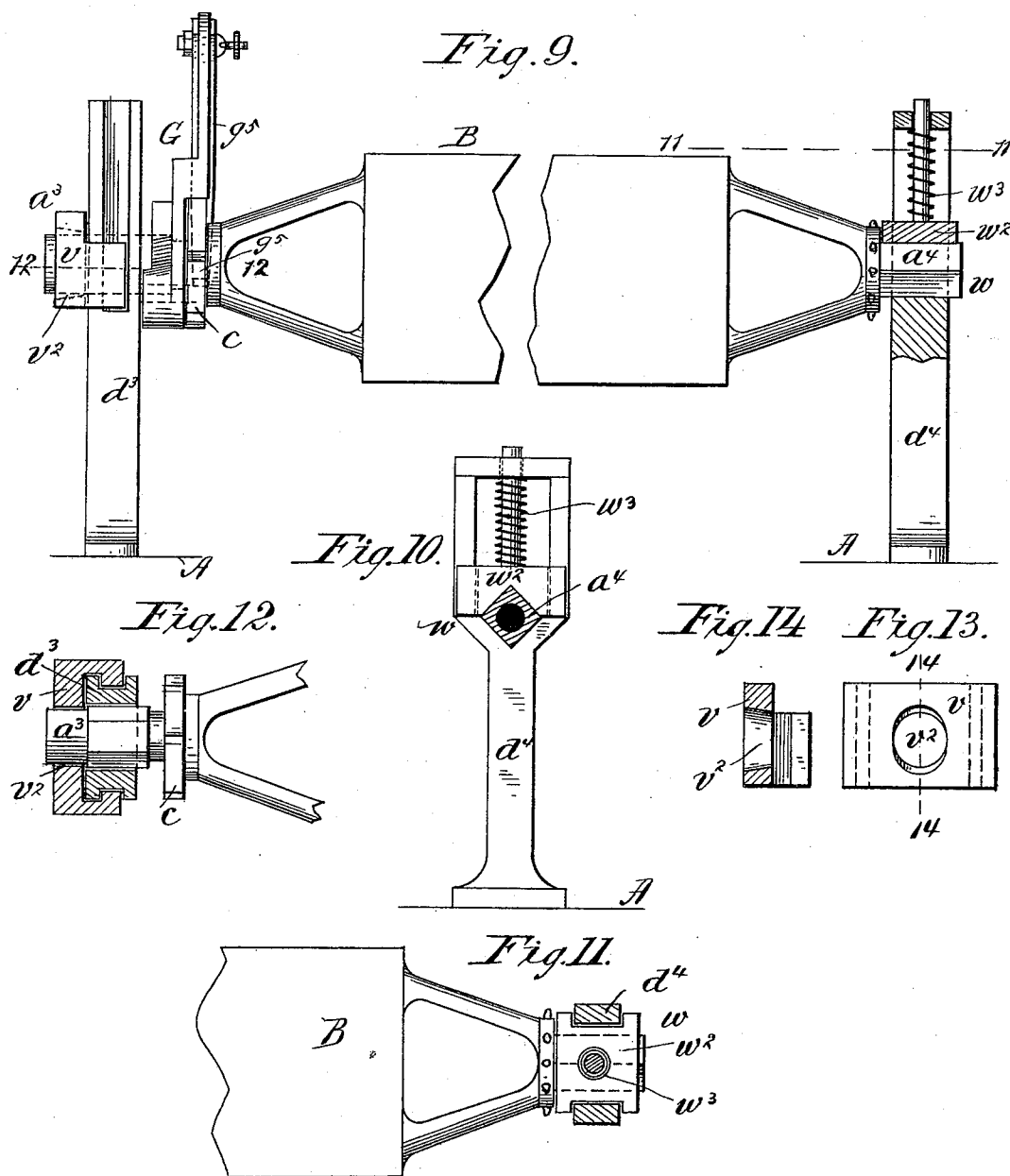
(No Model.)

3 Sheets—Sheet 3.

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UNITED STATES PATENT OFFICE.

JOHN D. BROWNE, OF SPRINGFIELD, MASSACHUSETTS.

SIGN FOR CARS.

SPECIFICATION forming part of Letters Patent No. 581,508, dated April 27, 1897.

Application filed July 27, 1896. Serial No. 600,607. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. BROWNE, a citizen of the United States, and a resident of Springfield, (Brightwood,) in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Signs for Cars, of which the following is a specification.

This invention relates to improvements in signs for street-railway cars, and more particularly to multiple or rotatable signs.

The objects of the invention are to provide signs for cars which will serve as day-signs and also as illuminated night signs or indicators to designate the route and generally to increase the capacity and efficiency of the equipments; and the invention consists in improved devices and mechanisms, all substantially as will hereinafter fully appear, and be set forth in the claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a side elevation at the top of a car, showing the same as provided with a side and an end sign or indicator. Fig. 2 is a cross-sectional view, on a larger scale, on line 2 2, Fig. 1. Fig. 3 is a front view of an end sign or indicator for the car, showing the door or cover which constitutes one side of the sign opened, exposing the illuminated sign or route-indicator. Fig. 4 is an end view of the sign shown in Fig. 3, indicating the manner by which two covers are adapted to close any of the four sides of the sign and to constitute any of four day-signs. Fig. 5 is a side elevation of a sign as applied on the roof of a car, near the side thereof, with parts operating in conjunction with the sign in section. Fig. 6 is a side view of the side sign with the door or cover constituting one side thereof opened, whereby the illuminated interior sign is visible. Fig. 7 is a cross-section on line 3 3, Fig. 2. Fig. 8 is a perspective view of parts hereinafter referred to. Fig. 9 is a side elevation, Fig. 10 an end elevation, and Fig. 11 is a plan and horizontal sectional view, on line 11, Fig. 9, showing the rotatable sign and the supports or journals therefor, which are somewhat varied from those indicated in the preceding drawings. Fig. 12 is a horizontal section in detail as taken on line 12 12, Fig. 9. Fig. 13 is an outer side view of the journal-bearing

shown in Figs. 9 and 12; and Fig. 14 is a vertical sectional view on line 14 14, Fig. 13.

In the drawings, A represents the top or roof of a car. B represents a side sign therefor, and B² represents an end sign or indicator. These signs, Sheets 1 and 2, have round end journals or gudgeons *a*, supporting thereon the sign-frames *b*, and said journals are mounted for rotation in the standards *d d*. The signs here shown are in the form of square prisms, although they may be of other prismatic forms. The sign-frames embody the opposite end skeleton castings, each comprising the double end walls *b² b²*, extensions *b³*, and the journals *a*, which are hollow or tubular.

The sign-frames support the sign sides *f*, which are preferably made of boards, painted, and these have on one or both sides lettering to indicate the streets or route. One or more of these sign sides *f* is hinged, as at *f²*, or movably mounted on the sign-frame, so that it may be swung or moved to uncover the intermediate part of the sign and expose the illuminated sign C within. The illuminated sign consists of a plate or plates of glass *g*, held by a metallic frame *g²*, having at its opposite ends the angular lugs *g³ g³*, which are passed through perforations in ear-pieces *g⁴* of the sign-frame, and spiral springs *g⁵* are applied, as shown in Fig. 6, and serve as cushion-supports for the glass-frame, so that jolting, as the car moves or as the sign is turned, will not fracture the glass.

The inner end wall *b²* of the sign-frame has a central circular aperture *b³* therein, in which is a holder *h* for the socket of an electric incandescent lamp *i*, the lamp projecting horizontally and longitudinally within the hollow sign. This circular lamp-holder *h* is loosely rotatable in the said circular aperture *b³* in the wall *b²* aforesaid of the sign-frame, and it has the depending weighted portion *h²*, which serves to keep the said holder and the lamp always the same side up, notwithstanding the unlimited rotations of the sign. The electric wires *j* loosely pass through the hollow sign-gudgeons to connection with the socket of the lamp in a well-known manner.

The sign-cover *f*—for instance, hinged at its one edge at a corner of the sign-frame, as indicated at *f²*—is adapted to be held closed by

the latch rods or members $k k$, the ends of which enter socket-pieces $m m$ therefor on the sign-frame. As shown, the two latch-rods $k k$ are articulated at k^2 to the vertical rod k^3 , guided on the outer side of the sign-cover, and which extends beyond the edge of the cover, such rod having the angular extremity k^4 . The spring k^5 serves to maintain the latches in their latching projections.

- 10 Through the car-roof is passed a rod n , the same extending upwardly through a hollow post n^2 , affixed to and extending above the car-top, this post having a cross-notch n^3 in its upper end. The rod has the angular extremity n^4 , and below it the cross-pin n^5 , and this rod also carries, above said pin, the hood or guard n^6 , to prevent water passing down through the post into the car. Said rod at its lower end has a handle or knob n^7 . This rod is normally turned so that the angular extension at its upper end is out of line with the latch-rod k , but by raising the rod so that the cross-pin n^5 will disengage the notch n^3 in top of post n^2 the rod may be turned half-way round, so as to be in position to engage the latch-rod, whereupon the latch may be unlocked, allowing the sign-cover to be swung open. The spring o serves to insure the initial opening movement of the cover.
- 30 As means for closing the cover I have provided the long shaft or rod p , having its cranked ends p^2 journaled in the brackets $q q$ therefor and provided with the fixed pulley p^3 and attached operating-cord p^4 , which, as seen in Fig. 2, extends into the interior of the car and has the pull-knob, by means of which to conveniently draw the cord which effects the upswinging of the said shaft p against the sign-cover and the forcing of the latter into its latched position.

- One of the sign-journals has the sprocket-wheel s fast thereon, around which passes a sprocket-chain t , which also is passed around a sprocket-wheel u within the car, (see Fig. 2,) said sprocket-wheel being inclosed within the casing u^2 , having the sight-aperture u^3 . The faces of the sprocket-wheel have at quarters the four indicating-letters "A," "B," "C," "D," as shown, and understood as corresponding to the sides of the sign B, whereby the conductor, while inside the car and operating the sign through means of the knob u^4 , which is fast to the sprocket-wheel, may know which sign-face he has brought outermost.
- 55 In Figs. 6 and 7 the rotatable sign is shown as having but one movable opaque side f and one internal transparent sign C, but the sign may have several or all its sides provided with movable covers f and therewithin the several transparent signs C. The inner and outer sides of the covers may be lettered so that when the sign is swung down in an oblique position, as shown in Figs. 6 and 7, to expose the internal sign, the lettering on the inner side of the cover may be also exposed, as may be of advantage on not very dark nights.

Fig. 3 indicates certain of the features of

this invention applied on a vertical sign or indicator which may be mounted on and between the hollow standards $d d$ on the end A^2 of the car below the roof. In Figs. 3 and 4 two covers $f^3 f^3$, hinged at diagonally-opposite corners of the sign-body, may, according as they are swung, cover sides 1 and 2 or 3 and 4. In Fig. 4 the casing closed only by the said two covers $f^3 f^3$ has the four inner glass faces $C^2 C^2$, which may be of various colors or combinations thereof, and of course the covers may bear names, numbers, or any desired indications.

The features of invention described are applicable on signs which are rotatable by any desired or appropriate means, and the sign B, Figs. 1 and 2, may be turned by the knob w^4 . The end roof-sign B^2 , Fig. 1, may be turned by hand, as may also the car-end sign shown in Fig. 3, while, as represented in Sheet 3 of the drawings, the same description of day and night signs may be rotated by substantially the same mechanism as set forth in my application for patent filed April 27, 1896, Serial No. 589,220.

The sign is mounted on and between the end standards $d^3 d^4$, one sign-journal a^3 passing through the pivoted lever or casting G, which carries the pawl m^5 , engaging a ratchet c on the said sign-journal a^3 , the swinging of the lever-casting serving to raise the sign-journal and simultaneously to turn it. The sign-journal a^3 , outside of the lever G, rests in the movable box v , Figs. 9, 12, 13, and 14, having socket v^2 , while the other end-sign journal a^4 , which is squared, has its support in the box w , in part constituted by the standard d^4 and in part by the vertically-movable member w^2 , the rising movement of which is against the spring w^3 . These constructions assure the sign remaining properly squared in the outward presentation of any of its faces and are simple, inexpensive, and practical.

I claim—

1. A sign for cars consisting of a hollow body or case, having an internal transparent wall, and an outer movable sign-cover, and a lamp within the casing to illuminate the transparent wall when the same is uncovered, substantially as described.

2. A sign for cars consisting of a hollow body or case rotatably mounted, having an internal transparent wall and an outer movable cover, a lamp within the casing, and a means for detachably confining said cover in its closed position, substantially as described.

3. A sign for cars consisting of a hollow body or case having a lamp interiorly mounted, an internal transparent wall, and an outer hinged cover, a latch to lock the cover closed on the sign-body, a latch-operating rod movably mounted on the sign and a movable rod n extending within the car and adapted to engage the latch-operating rod, substantially as described.

4. In a sign for cars, the combination with the rotatable sign having the hinged and mov-

able sign-cover, the latch-rods k k , sockets m m , and latch-operating rod k^3 having spring k^5 , of the hollow post n^2 having notch n^3 and rod n having angular extension n^4 and pin n^5 , said rod sliding and turning through the hollow post, substantially as described.

5. In a sign for cars, the combination with the latch-operating rod k^3 on the sign, of the hollow post n^2 on the car and rod n having angular extension n^4 and hood n^6 to cover the top of the post through which said rod n is movable, substantially as and for the purpose set forth.

6. In a sign for cars the combination with the sign-body having the hinged sign-cover, substantially as described, of the rod p having the offset journals, by which said rod is mounted, and means for partially revolving said rod from said journals for closing the sign-cover, substantially as described.

7. The combination with a hollow frame for a sign having hollow journals and a circularly-apertured end wall as b^2 , of a support for an electric lamp having a circular portion loosely and rotatably fitted in said circular aperture and having the depending weighted portion h^2 , and the wires extending to the lamp through the hollow journals, substantially as and for the purpose set forth.

8. The combination with a rotatable multiple sign having a sprocket-wheel on one of its journals, of a casing within the car having a second sprocket-wheel mounted therein on the side of which are indicating-characters corresponding to the several sign sides, said casing having a sight-aperture, and the chain running around said sprocket-wheels, substantially as described.

9. In a rotatable sign for cars, a hollow body or case having therein a lamp, an outer cover, and an internal glass, a frame carrying said glass, and springs supporting said glass-frame from the sign-body, substantially as described.

10. The combination with the sign frame or body having the perforated ear lugs g^4 of the glass, the glass-frame having its angular end members g^3 passing through said ear-lugs, and the spiral springs g^5 , substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 20th day of July, 1896.

JOHN D. BROWNE.

Witnesses:

CHARLES S. PAIGE,
WM. S. BELLOWS.