M. LEVISON.

ANNUNCIATOR CABINET.

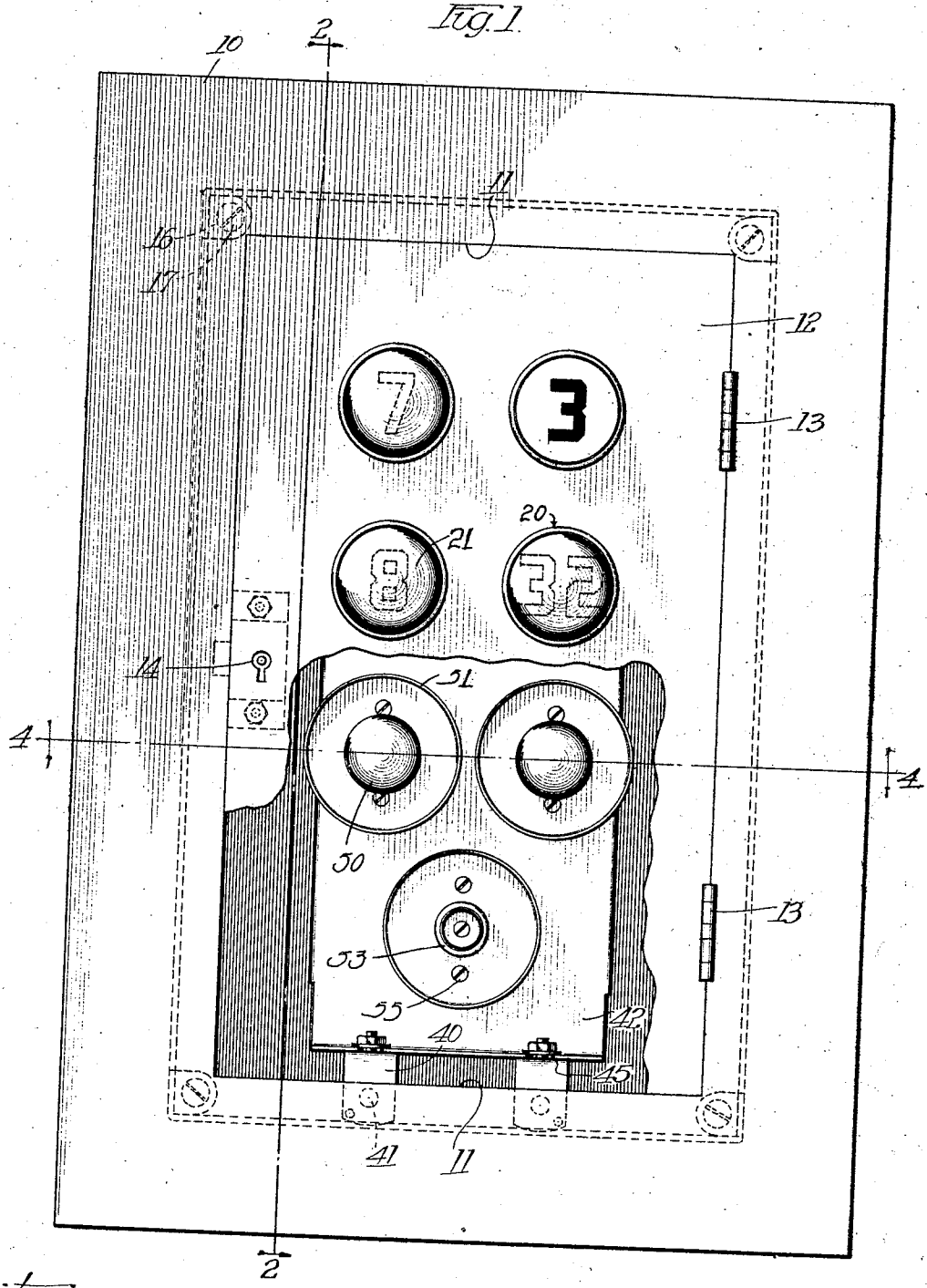
APPLICATION FILED MAR. 6, 1914.

1,108,999.

Patented Sept. 1, 1914.

3 SHEETS—SHEET 1.

Fig. 1.



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3 SHEETS—SHEET 2.

Fig. 2.

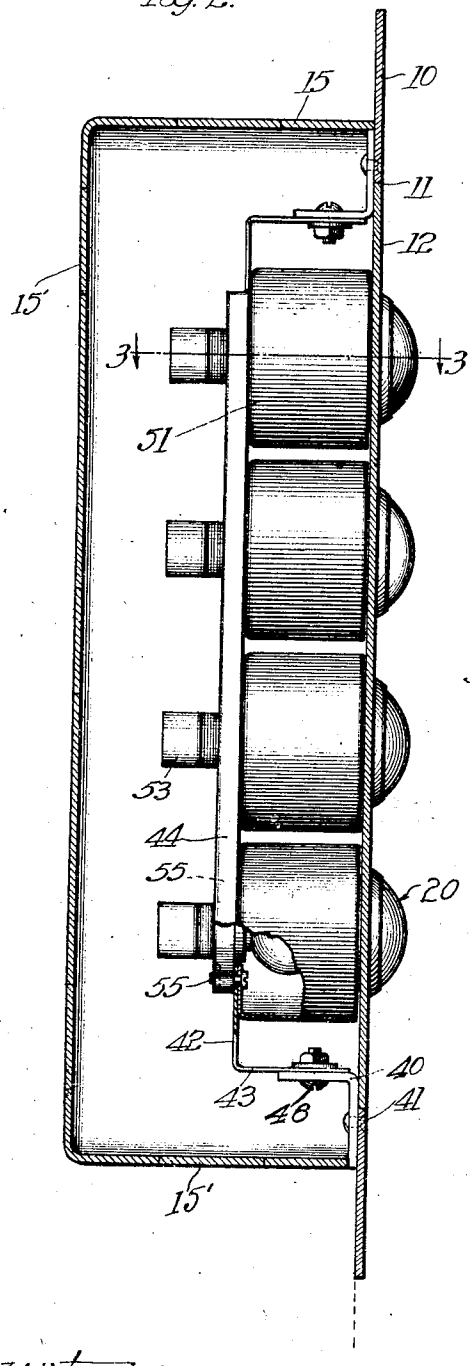
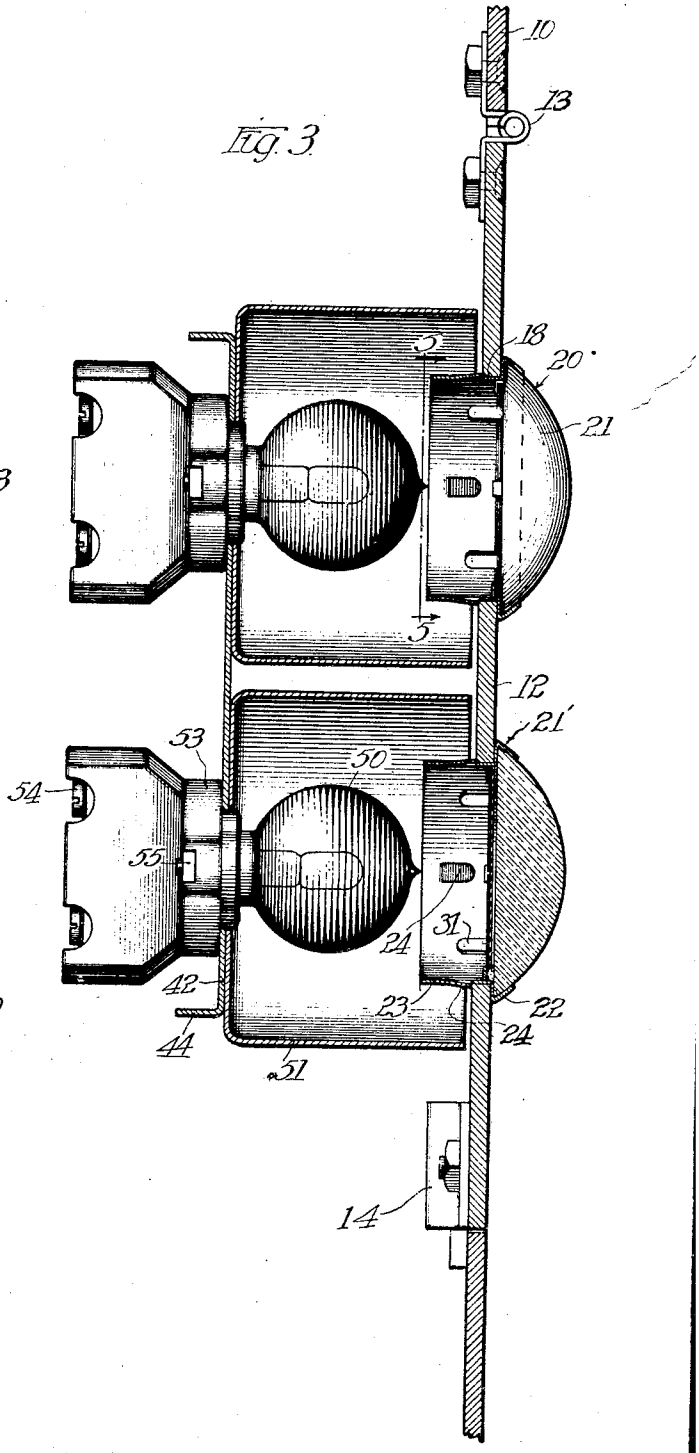


Fig. 3.



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3 SHEETS—SHEET 3.

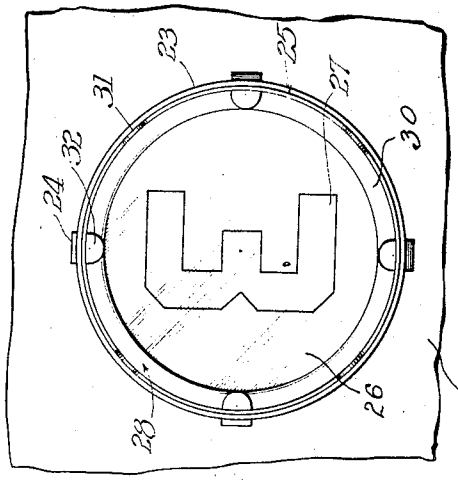


Fig. 7.

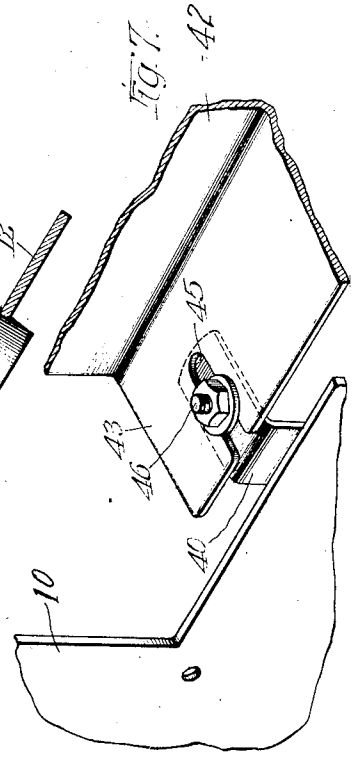


Fig. 5

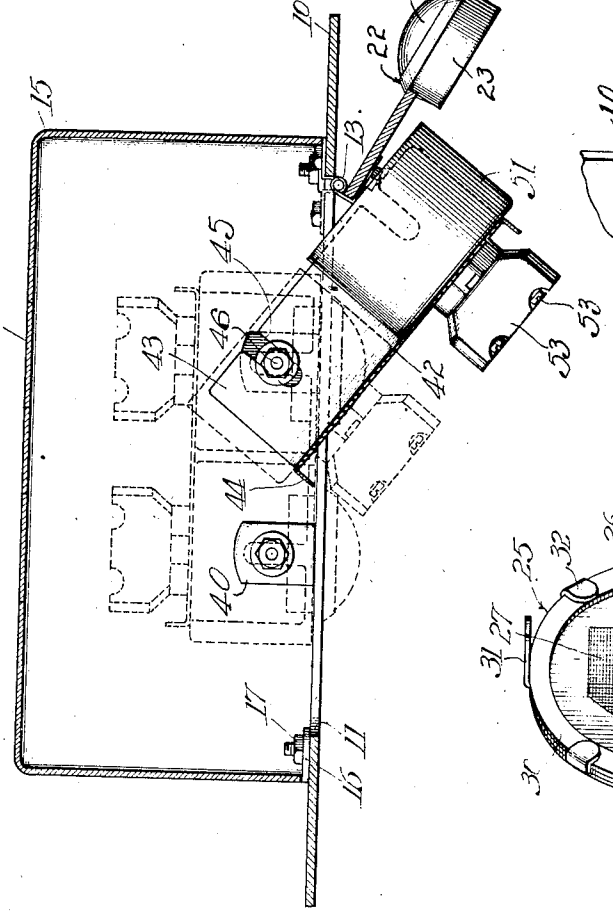
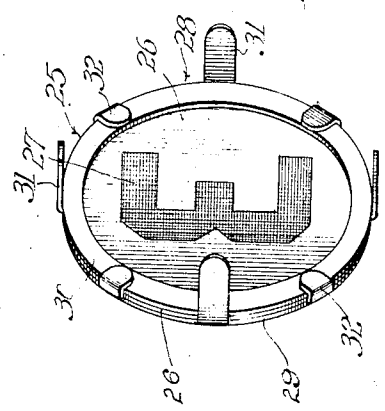


Fig. 4.

Fig. 6.



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UNITED STATES PATENT OFFICE.

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ANNUNCIATOR-CABINET.

1,108,999. Specification of Letters Patent. Patented Sept. 1, 1914.

Application filed March 6, 1914. Serial No. 823,016.

To all whom it may concern:

Be it known that I, MAURICE LEVISON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Annunciator-Cabinets, of which the following is a specification.

My invention relates to improvements in annunciator cabinets, and particularly in some of its features to annunciator cabinets wherein electric lamps are used for effecting the signal display.

One of the objects of my invention is to provide a flush-type, all-metal cabinet construction, which is simple, easily manufactured, fabricated largely of a plurality of similar parts, and susceptible of embodiment in neat and attractive form.

A further object of my invention is to provide a construction of the character described, wherein all of the lamps, and their associated parts, are mounted on a unit lamp-base structure adapted, when in use, to be fixedly secured within the casing, but adapted, also, to be moved with respect to the casing to a position giving ready access to the wiring terminals at the back of the lamp-base structure.

Another object of my invention is to provide improved means for mounting the lamps and for confining the illuminating effect of each lamp to its appropriate lens, so that false illumination of any annunciator targets other than that directly associated with the energized lamp may not occur.

Still another object of my invention is to provide an improved construction, arrangement, and mounting of the lenses associated with the lamps, and of the designating characters or indicia which are associated with lenses. A particular object of my invention in this regard is to provide such construction that the designating indicia of the several lenses may not be visible except when illuminated from the rear, as upon the glowing of the respective lamps associated therewith.

Other and further objects of my invention will become apparent to those skilled in the art from the following description taken in conjunction with the accompanying drawing in which I have illustrated, for purpose of full disclosure, an embodiment of my invention that is particularly adapted for hospital signaling service, and that I have found in practice to be satisfactory and efficient.

In the drawings Figure 1 is a front elevation with parts broken away showing a flush-type wall cabinet constructed in accordance with my invention; Fig. 2 is a vertical section on line 2—2 of Fig. 1, with parts broken away. Fig. 3 is a horizontal, section on line 3—3 of Fig. 2, showing one lens and its indication in sections and the other in elevation. Fig. 4 is a transverse section on line 4—4 of Fig. 1 showing the cabinet open and the lamp frame unit turned to position to expose the lamp wiring terminals. Fig. 5 is an enlarged rear elevation on line 5—5 of Fig. 3. Fig. 6 is an enlarged perspective view of an index unit. Fig. 7 is an enlarged perspective detail illustrating the mounting of the lamp carrying base.

In the particular construction shown in the drawings 10 indicates a wall plate or border frame having an opening 11 closable by a door 12, hinged at one side, as at 13, and provided with any suitable lock or latch 14. Associated with the border frame 10 is a box member 15, preferably of a single piece drawn metal construction, provided at suitable points with "knock outs" 15′ to admit the requisite wiring of said box having its face opening fitted flush against the rear face of the plate 10 and having at its corners lugs 16 bolted as at 17 to said plate. In hospital installations and the like the entire exterior surface of the wall plate and door are enameled so that all the screws and bolts taking through said parts are concealed.

The door or closure 12 has cut therein, in any suitable relative arrangement, generally in vertically alining tiers, apertures 18 in which are mounted the lens structures, each of which is generally indicated at 20. Each lens structure preferably comprises the plano-convex lens 21, having its planar surface ground and its curved surface clear. This lens is mounted in a holder 21′ comprising a rim 22 and a tubular body 23, said rim underlying a border portion of the planar surface of the lens and spun over its convex border, and said tubular body interfitting with the aperture 18 and extending

through and beyond the door plate 12. In the tubular portion 23 are formed retaining spring fingers 24, which, when the holder is in place, act against the rear face of plate 10 to retain the holder in position.

I prefer that the distinguishing indicia associated with the respective lenses—whether numerals, letters or the like—be mounted in border frames detachably connected with the lens holders—so that the respective indicia of the different lenses may be changed or transposed as desired. In the particular construction shown (Figs. 5 and 6) 25 represents in general the indicating unit consisting preferably of a translucent disk 26, of mica or other suitable material, bearing an opaque index mark 27, which may be a black paper numeral pasted on the disk, said disk mounted in a rim frame 28 adapted for insertion and self retention in the tubular portion of the lens holder. Specifically 29 and 30 indicate opposing rim rings, ring 29 having projecting rearwardly therefrom a set of retaining spring fingers 31, adapted to make frictional engagement with the interior surface of the tubular member 23 of the lens holder, and also having a series of clamp fingers 32, which are inturned over the edge of a complemental border ring 30, so that the two rings 29 and 30, united by the fingers 32 position and reinforce the translucent disk. Manifestly the index unit 25 may be inserted in any lens holder so that the mica disk is brought close to the ground planar face of the lens and the indication 27 is thereby properly positioned. When light falls on a lens only from the front; as when there is no illumination within the casing, the numerals 27 are substantially invisible; the ground planar faces of the lenses making them appear "frosted" when viewed from in front. But when illuminated from the rear the numerals stand out boldly, as does the numeral "3," in Fig. 1.

A lamp is provided for association with each lens, and these lamps and their appurtenant parts are mounted on a supporting frame suitably secured within the housing. In the specific construction shown I provide upper and lower pairs of clips or angle-brackets, 40, forming vertically alining couples having their vertical legs riveted or otherwise secured as at 41 to the wall plate 10 adjacent the upper and lower edges of the opening 11. Each said clip extends past the edge of the door opening to form a stop for the door and is rearwardly bent to provide a horizontal supporting surface. While I preferably provide four of these supporting clips 40 for a cabinet structure of any ordinary size, more may be provided, if required, in extreme cases. The lamp-carrying base or carrier 42 is a metal plate having its upper and lower edges forwardly bent to form flanges 43 interfitting neatly between the supporting flanges of the brackets 40, and preferably having its vertical edges rearwardly bent into flanges 44, for strength and to prevent buckling. Plate 42 is preferably mounted on the clips by detachable fastenings such as vertical bolts 46, so that by removing the bolts from the upper and lower clips forming the couple on either side of the median vertical line of the structure, the lamp plate 42 with all of its pertinent parts may be swung pivotally upon the remaining couple of bolts, as best illustrated in Fig. 4. Specifically each flange 43 is slotted as at 45 at right angles to its forward edge, and the bolts 46 taking through brackets 40 and the slots 45 secure the plate structure in place. Manifestly such connection gives the plates a susceptibility to adjustment toward and from the front of the casing, and as shown in Fig. 4 the removal of one couple of the bolt connection 46 enables the plate structure to be swung on the remaining couple of bolt connections as a pivotal axis so that the plate structure may be swung out through the open doorway to reversed position exposing the rear side of the plate outside of the casing to facilitate the placing of the electric wiring. To this end I so proportion the plate and the parts connected therewith that they may be swung through the open doorway 11 without hindrance.

Each lamp 50 carried by the plate 42, of course alines axially with its corresponding lens 21, and each is inclosed within a shield 51, to prevent diffusion of the light, each such shield preferably extending close to the door 12 and preferably overlapping, in a fore and aft direction, the inner end of the tubular portion 23 of the lens holder. In the specific construction shown the shields 51 are drawn metal cups, the base of the cup and the plate 42 being suitably apertured to receive the insulated body of a lamp socket or receptacle 53, which extends suitably in rear of the plate 42 to expose its wiring terminals 54 at the rear of said plate. As best shown in Fig. 7, each lamp socket body and the shield cup appurtenant thereto may be secured to the base plate 42 jointly by bolts 55. Manifestly the fore and aft adjustment of plate 42 permits the front edges of all of the shields to be brought as close as need be to the rear face of the door.

Having thus described my invention, what I claim is:—

1. In an annunciator construction, the combination of a frame having an opening, a closure for said opening having light apertures, a lamp-receptacle carrying-plate

hingedly connected with said frame and movable through the opening thereof, and lamp-receptacles carried by said plate having their wiring terminals on the rear side thereof.

2. In an annunciator construction of the character described, the combination of a housing comprising a box member and a front frame member having an opening, a movable closure for said opening having light apertures therein, a lamp-receptacle carrying-plate, lamp-receptacles on said plate registering with the respective light openings in the closure and having the wiring terminals on the rear of the plate, and means within the casing supporting said plate for pivotal movement through the front opening to expose the wiring terminals of the lamp-receptacles outwardly.

3. In an annunciator construction, the combination of a plate having an opening, a movable closure for said opening having light apertures, brackets on said plate, two of said brackets being arranged in a vertically alining couple, a lamp-receptacle carrying-plate, connections between said plate and said vertically alining brackets whereon the plate may be pivotally moved, and lamp receptacles carried by said plate in register with the light openings.

4. In a construction of the character described, the combination of a frame having an opening, a closure therefor having light apertures therein, brackets carried by said frame extending into the area registering with the frame-opening, a lamp-receptacle carrying plate having forwardly extending flanges at its top and bottom, coöperating with said brackets, means for detachably connecting said flanges with said brackets including a couple of vertical alining connectors adapted to act as pivots for movement of said plate through said frame opening, and lamp receptacles on said plate.

5. In a structure of the character described, the combination of a frame 10, having an opening 11, brackets 40, arranged in horizontal pairs and vertical couples, extending into register with the said opening, the lamp carrying plate 42 having forwardly extending top and bottom flanges 43, provided with slots 45, connector-bolts 46 taking through said brackets 40 and slots 45, lamp receptacles carried by said plate, and a closure for said opening 11, having light openings registering with said lamp receptacles.

6. In a structure of the character described, the combination of a frame 10, having an opening therein, a closure for said opening having light apertures, a lamp plate hingedly mounted on said frame and spanning said opening, a plurality of lamp receptacles carried by said plate registering with the respective light openings, and individual shields carried by said plate, each surrounding one of said lamp receptacles.

7. In a construction of the character described, the combination of a frame, having an opening, a closure for said opening having light apertures therein, brackets carried by said frame extending into register with said openings, a lamp carrying plate spanning said brackets and secured thereto, a plurality of lamp receptacles alining with the respective light apertures, a cup shaped shield surrounding each lamp receptacle and extending close to the apertured closure, and means securing the said cups on the front of said plate and said lamp receptacles on the rear thereof.

8. In a construction of the character described, the combination of a plate having an opening, a hinged closure for said opening arranged when closed to lie flush with the frame, brackets on the inside of said frame forming stops for said closure, a lamp carrying plate bridging said brackets, lamp receptacles carried by said plate, and lenses in said door alining with said lamp receptacles.

9. In an annunciator structure of the character described, the combination of a frame having an opening, a closure for said opening substantially flush with the frame, a plurality of lamps mounted in rear of said closure, a shield surrounding each said lamp extending close to the closure, lenses alining with said lamps, lens holders, each providing a tubular portion extending through the closure aforesaid axially within the confines of the shield for the appropriate lamp and spring finger formed on said tubular portion for engagement with the rear face of the closure.

10. In a structure of the character described, a casing, lamps within said casing, lenses, removable lens holders each extending through the casing in alinement with a lamp and spring held therein, and removable index structures for said lens holders, each comprising a sheet of translucent material, bearing a more opaque index character, and a rim for said sheet of translucent material.

11. In a structure of the character described, a casing, lamps within said casing, lenses, lens holders each extending through the casing in alinement with a lamp, and removable index structures for said lens holders, each comprising a sheet of translucent material, bearing a more opaque index character, and a rim for said sheet of translucent material provided with spring means for self retention in the lens holder.

12. In a structure of the character described, the combination with the lamps and a casing therefor providing light apertures

alining with the lamps, of lenses for said apertures, lens holders carrying said lenses, each provided with a tubular portion extending through the appropriate light aperture, and index members each comprising a rim, a sheet of translucent material bearing an index character mounted in said rim and axially projecting fingers on the rim engaging within the tubular body of the lens holder.

13. In a structure of the character described, the combination with the lamps and a casing therefor providing light apertures alining with the lamps, of lenses for said apertures, lens holders carrying said lenses, each provided with a tubular portion extending through the appropriate light aperture, and index members each comprising a sheet of translucent material bearing a more opaque index character, and a rim therefor comprising two rings, on opposite sides of the translucent material, one said ring having fingers bent over the other said ring, and one said ring having projecting fingers to engage the tubular body of the lens holder.

14. In a structure of the character described, the combination of a casing, having a front opening, a closure for said opening provided with a plurality of light apertures, lamp receptacles for said respective light apertures, shields for said respective lamp receptacles adapted to extend substantially to the closure to prevent diffusion of light within the casing, and a common support for said lamp receptacles and shields adjustable toward and from said closure.

In testimony whereof I hereunto set my hand in the presence of two subscribing witnesses.

MAURICE LEVISON.

In the presence of—
STANLEY W. COOK,
MARY F. ALLEN.