

J. J. JONES.
SIGN.

APPLICATION FILED JUNE 23, 1908.

1,006,483.

Patented Oct. 24, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

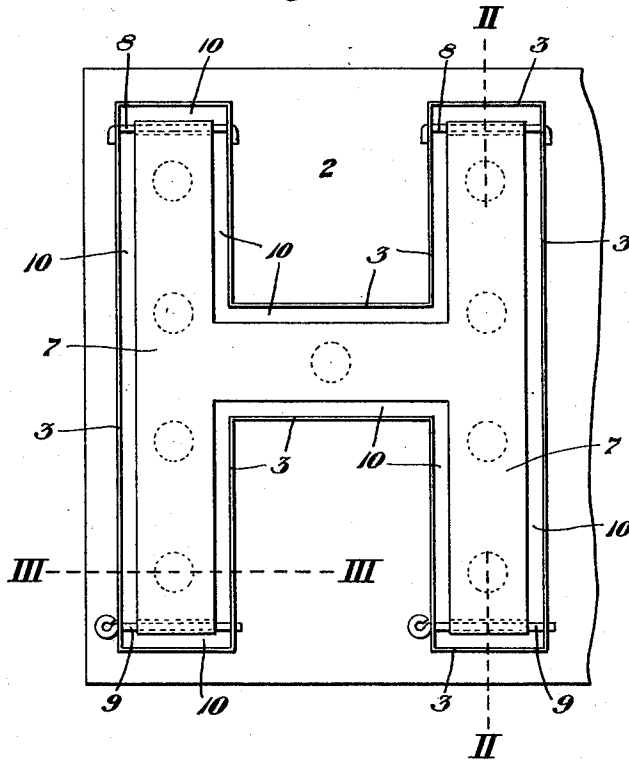


Fig. 2.

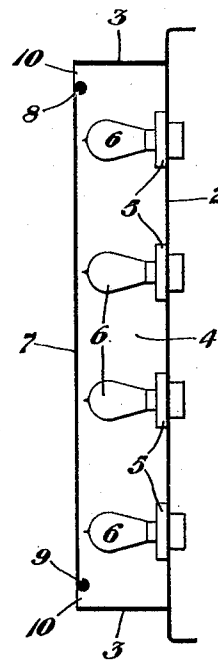


Fig. 3.

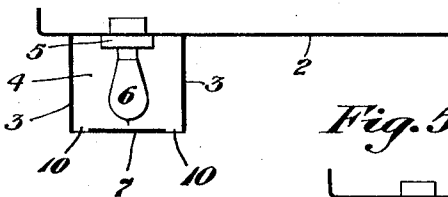


Fig. 4.

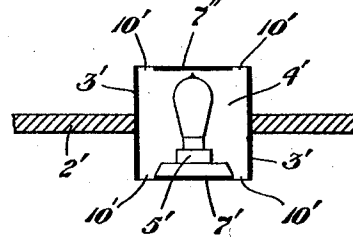
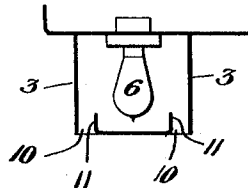


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 6.

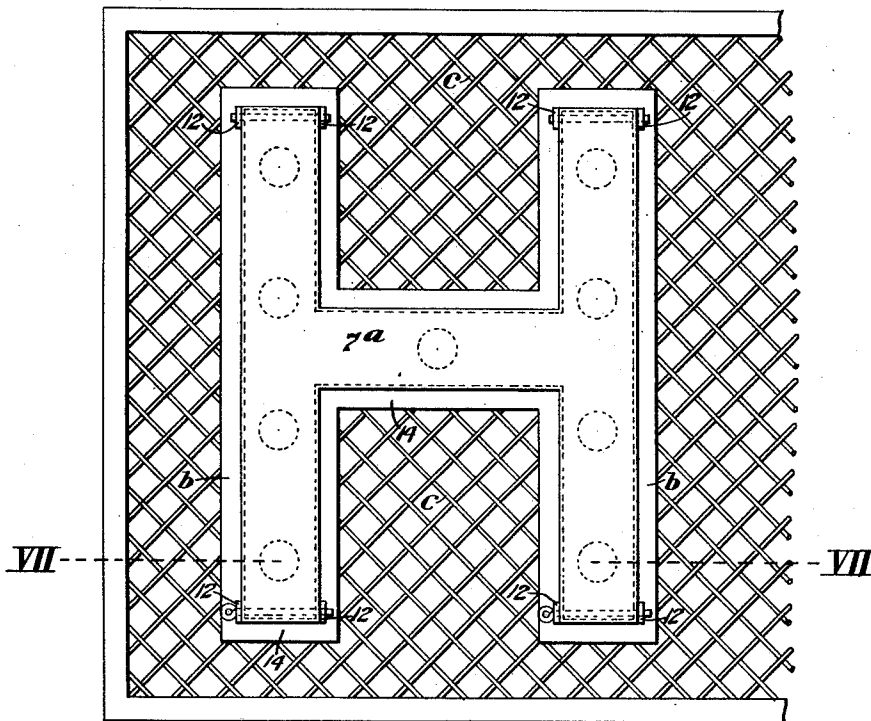
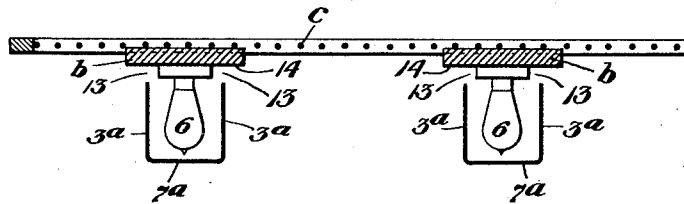


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOSHUA J. JONES, OF PITTSBURGH, PENNSYLVANIA.

SIGN.

1,006,483.

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed June 23, 1908. Serial No. 439,945.

To all whom it may concern:

Be it known that I, JOSHUA J. JONES, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Signs, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention refers to improvements in illuminating signs, preferably electric, and has for its object to provide means for obscuring the supply lamps, partially confining the rays, diffusing the light, and providing boundary slots or fissures for the emission of the rays for a "night" sign, while providing a flat faced prominent "day" sign of great utility and advantage.

Referring to the drawings: Figure 1 is a view in elevation of a sign character made in accordance with my invention. Fig. 2 is a vertical section on the line II. II. of Fig. 1. Fig. 3 is a horizontal section on the line III. III. of Fig. 1. Fig. 4 is a similar section, showing a double faced sign. Fig. 5 is a section similar to Fig. 3 showing the shield provided with edge flanges. Fig. 6 is a view similar to Fig. 1 but showing the light inclosing walls and shield as made in one construction. Fig. 7 is a cross section on the line VII. VII. of Fig. 6.

Illuminating signs of the general class in which my invention is an improvement are provided with continuous series or lines of individual lamps, defining the characters, and set upon a background, usually white, within light-confining walls which extend outwardly at each side of the lamps, beyond a vase, usually black.

The lamp-bearing background and the inner faces of the walls, contrasting in color from the base, define the outline of the sign character by contrast for "day" use whether the lamps be inserted or not, while for "night" use the successful operation of the sign depends largely for complete efficiency not only on the continuity of the closely adjacent lamps but upon the reflecting background and inner sides of the confining walls.

The effective operation and best results of such construction and arrangement necessarily depends upon the continuous maintenance of all of the lamps, so that if one or more of them are out of service from any cause, which frequently happens, the char-

acters are necessarily rendered incomplete for "night" use, while the sign for "day" use consists necessarily of the deeply recessed lamp-containing channels formed by the thin projecting walls extending beyond the main base.

The object of my invention is to provide a sign having outer flat faces in relief in contrast with a supporting base, combined with the light-containing channels with outlining light-emitting slots or fissures, whereby the individual lamps will be concealed and their rays confined, reflected and diffused in increased intensity therethrough, as hereinafter described.

In the principal figures of the drawings, 2 represents any convenient base of sheet metal or other suitable material, upon which are built outwardly therefrom the character-defining walls 3 which are ordinarily of sheet metal, extending outwardly to a uniform height beyond the base. Within the defining channel 4 thus formed are mounted the lamp bases 5 on base 2, suitably wired from the back or in any operable manner to suit the construction, adapted to receive the series of lamps 6 and so arranged that the lamps will be distributed generally along the channel or channels 4 to substantially outline the character.

7 is a front shield or mask mounted between the walls 3 at or about the same general level as their front edges in any suitable or convenient manner to permit of opening or closing the lamp cavity. I have shown the shield as pivoted at one end by means of one or more hinge pins 8 set in the walls 3 and secured at the other end by similar pins 9, preferably removable, to permit the shield to be turned upon hinges 8 to open the interior cavity 4. The width of the shield 7 is made sufficiently less than the width of the cavity 4, and its length is correspondingly shortened, so that when the shield is located in position, midway of the space between the walls it will leave a continuous intervening slot or fissure 10 entirely surrounding the shield and within the outer walls 3.

The object of this construction is that the individual lamps will be obscured and their aggregate volume of light will be confined within the cavity 4 and diffused in a composite ray through the slot 10. The sign character is thus defined by inner and outer continuous lines of great brilliancy which

are sharply defined when viewed from a close distance while as the distance is increased, the shield itself appears to disappear so that the entire face of each main member of the character has the appearance of a continuous band of light. This is due to the obscuring of the individual lamps, and a feature of great advantage is that the sign does not depend for efficiency upon the continuity of a series of closely adjacent lamps, but that the number of lamps for any given area of a sign is greatly reduced. Also, that in the case of burning out, breakage, or removal of one or more lamps, the continuity of the defining rays is merely lessened in degree without interrupting or marring the effect as is the case where the formation of the sign character depends largely upon the actual presence and individual operation of each lamp. The outer face of shield 7 is of a color contrasting to that of the face of base 2, preferably white, and when used as a "day" sign presents a continuous flat face practically even with the outer edges of the walls 3, of a good and finished appearance, while the slots 10 add variety and interest to the character itself either with or without the interior light.

In Fig. 4 I have shown a modified construction in which the walls 3' extend through and beyond the base 2' at each side, and in which the cavity 4' is closed at front and back by shields 7' and 7'' with corresponding light slots 10' corresponding to those above described. The lamp bases 5' are set upon the inner face of said shields 7' as shown and by this arrangement it will be seen that the light will be equally diffused in both directions, rendering the sign operable at each side and doubling its efficiency.

Fig. 5 shows the front shield 7 as provided with backwardly extending flanges 11 of sufficient depth to cut off the direct ray of the lamps through the slot 10 when viewed diagonally.

In Figs. 6 and 7 the outline of the character is defined by a flat faced base *b* set upon any suitable support as a wire screen *c* and provided with the lamps 6 in the same general manner as already described. The shield or mask consists of the front face 7^a having the backwardly extending sides 3^a integral with or attached to the front, and the shield as thus made is mounted outwardly in front of the base *b* upon supports

or bearings 12 of any suitable kind, with the pins already described. In such construction the light slot 13 is located immediately in front of the base *b* whereby the light will be reflected from the projecting edges 14 of the base, clearly defining the character in the same manner generally as has been above described.

It will be understood that the invention may be greatly changed or modified in construction or design to suit different conditions of use, and may be applied to any design of sign, device, ornamental border, or emblem; or the device may be otherwise varied by the skilled mechanic, but all such changes are to be considered as within the scope of the following claims.

What I claim is:—

1. In a sign, the combination of a flat reflecting base, a flat character-defining shield parallel therewith, straight walls located outwardly beyond the base at right angles to the base and shield and forming with the base and shield defining light slots which surround the shield, and light furnishing means located behind and obscured by the shield, said shield and base having contrasting colors, substantially as set forth.

2. In a sign, the combination of a flat reflecting base, outwardly extending character-defining walls at right angles to the base, an obscuring shield parallel with the base and located outwardly beyond the base between said walls with an intervening defining slot conforming to the outline of the shield and walls, and light furnishing means located behind and obscured by the shield, said base also being provided with a defining slot between it and said walls, substantially as set forth.

3. In a sign, the combination of a flat reflecting base, outwardly extending character-defining walls at right angles to the base and spaced away therefrom to provide a defining light emission slot, an obscuring shield parallel with and outwardly beyond the base between said walls, and light furnishing means located behind and obscured by the shield, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSHUA J. JONES.

Witnesses:

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