No. 889,145. PATENTED MAY 26, 1908.

G. C. NIENTIMP.

ELECTRIC SIGN.

APPLICATION FILED MAR. 16, 1907.

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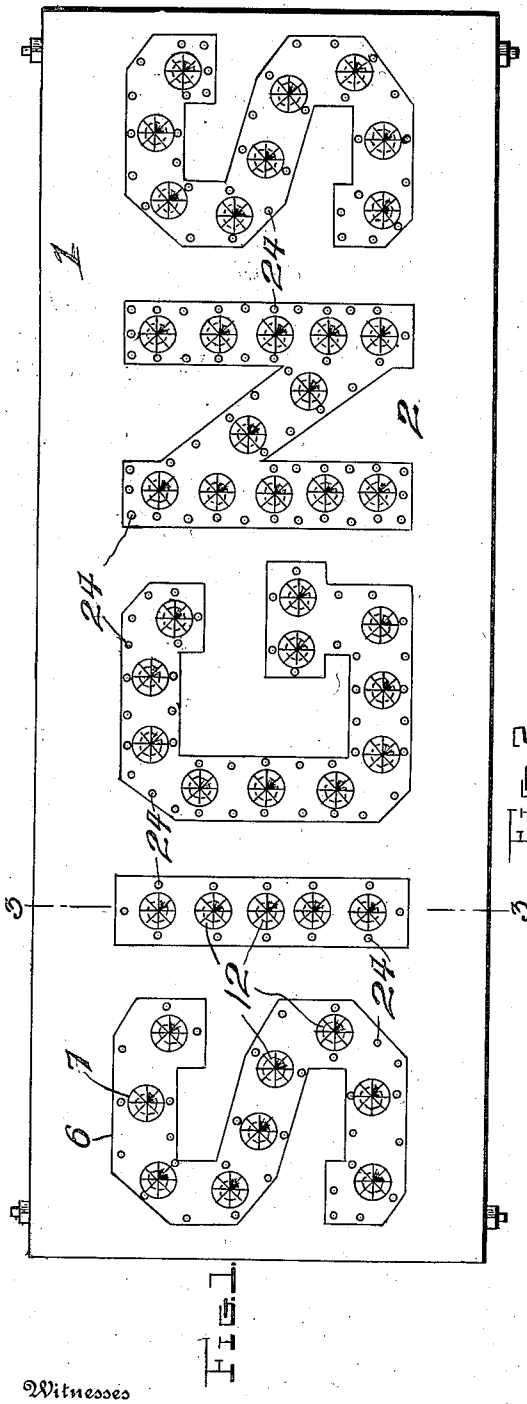


Fig. 1.

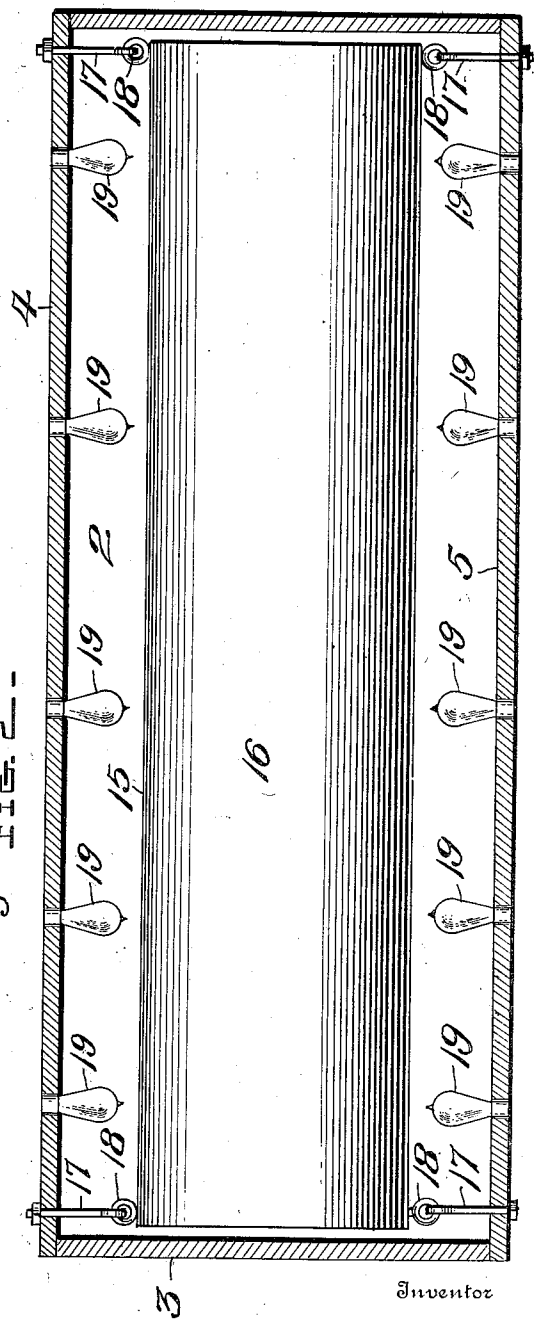


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

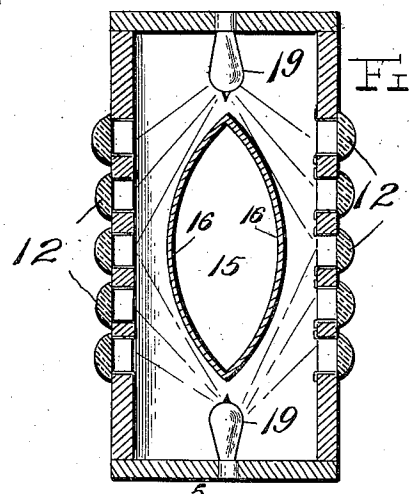



Fig. 6.

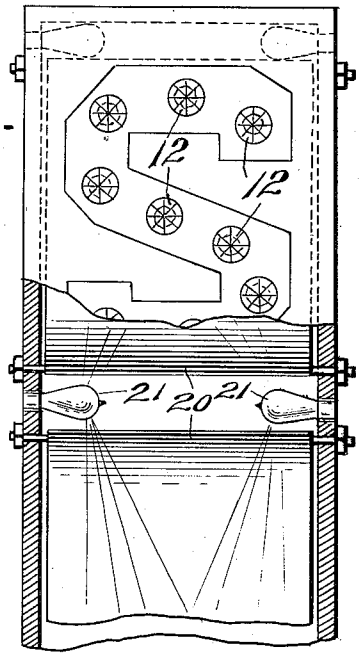



Fig. 4.

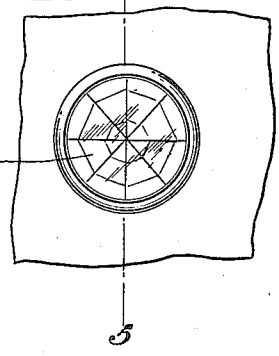



Fig. 7.

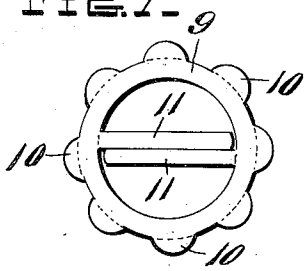



Fig. 8.

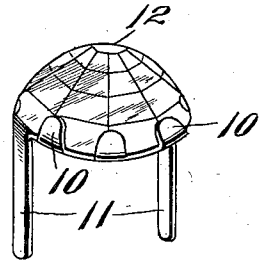
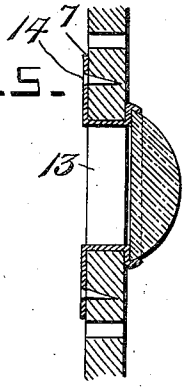



Fig. 5.

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# UNITED STATES PATENT OFFICE.

GEORGE C. NIENTIMP, OF ERIE, PENNSYLVANIA, ASSIGNOR TO JEWEL ELECTRIC SIGN COMPANY, OF ERIE, PENNSYLVANIA.

## ELECTRIC SIGN.

No. 889,145. Specification of Letters Patent. Patented May 26, 1908.

Application filed March 16, 1907. Serial No. 362,673.

*To all whom it may concern:*

Be it known that I, GEORGE C. NIENTIMP, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in Electric Signs, of which the following is a specification.

The invention relates to an improvement in signs and particularly signs arranged for illumination to effectively display the sign data.

The main object of the present invention is the production of a sign constructed and arranged to insure perfect and effective illumination at a comparatively little expense, in which the illuminating medium is so directed as to be entirely utilized for the sign data illumination, and in which the sign characters are so constructed as to present a brilliant and artistic effect under the illuminating medium.

The detailed structure of the parts of the sign of the present invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a view in elevation of a sign constructed in accordance with my invention. Fig. 2 is a vertical sectional view of the same, the reflector being shown in elevation. Fig. 3 is a transverse vertical section of the same, on the line 3—3 of Fig. 1. Fig. 4 is an enlarged elevation of a portion of the sign character showing one of the jewel lenses. Fig. 5 is a transverse section on line 5—5 of Fig. 4. Fig. 6 is a view in elevation, partly in section of a portion of a sign constructed in accordance with the present invention, and illustrating a slightly modified arrangement of the sign characters. Fig. 7 is a plane of one of the jewel holders. Fig. 8 is a perspective view of one of the jewel holders, showing the jewel therein.

Referring particularly to the drawings, wherein is illustrated the preferred embodiment of details of the present invention, my improved sign comprises a casing 1, which in the preferred form is of rectangular outline, including side walls 2, end walls 3, top 4 and bottom 5. The casing may be of any preferred size and is constructed of wood or similar inexpensive material.

The sign characters 6 are either suitably outlined on one wall of the casing, as one of the side walls 2, or may be constructed of separate material and secured in appropriately formed openings in the side walls.

Each sign character carries a series of bulls-eyes or jewel lenses, arranged in such spaced relation relative to each other as to outline a sign character similar to the particular character on which they are secured. These lenses are preferably cut in jewel form, though if preferred, they may be simply in lens form and of either white or colored glass.

It has been heretofore proposed to outline sign characters by the use of similar lenses, though in such constructions with which I am familiar, the lenses have been so secured to the character as to interfere in some degree at least with the free passage of light therethrough.

One of the important features of the present invention is to obviate the disadvantages resulting from such light interference and to so secure the jewels in place as to permit an uninterrupted passage of the light. By this means I am enabled to produce a sign which is more brilliantly illuminated by a smaller amount of illuminating medium.

The particular holder for the jewels used in conjunction with my sign is more clearly illustrated in Figs. 5, 7 and 8, in which the holder 8 comprises a ring 9 formed with a series of regularly spaced radiating prongs 10, the inner edge of the ring being formed at approximately diametrically opposing points with fingers 11, terminally secured to the ring at opposing points and practically equal in length to the inner diametrical extent of the ring. The jewels or lenses 12 are secured in the holders by engaging the prongs 11 of the latter with the jewels in the usual manner, as clearly shown in Fig. 8. The sign character is, at appropriate points in its surface, formed with openings 13, corresponding in diameter to the inner diameter of the ring 9, and said holders are secured to the sign character by arranging the rings concentric with the openings 13, bending the fingers 11 at right angles to the plane of the rings and causing said fingers to engage the wall of the openings 13. The free inner ends of the fingers are then bent laterally to bear against the inner surface of the sign character beyond the openings 13, and secured to said surface by nails 14, or in any other preferred manner. By this means the passage of the illuminating medium from the interior of the case is entirely uninterrupted with the effect

to cause a more brilliant illumination of the sign.

In connection with the jewel securing means, whereby to secure the greatest freedom for the passage of the illuminating medium, I contemplate the use of a reflector constructed to direct the illuminating medium to the openings in the sign characters. As more clearly shown in Fig. 3, this reflector comprises an elongated body 15, of approximately oval-shape in transverse section, with the reflecting surfaces 16 arranged adjacent the openings 13. The reflector is supported centrally within the casing, preferably by eye-bolts 17, secured at the end of the top and bottom of the casing and engaging eyes 18 formed or projecting from the reflector.

The illuminating means, consisting of a series of incandescent lamps 19, are secured to the top and bottom of the casing, arranged in a longitudinal row and in alinement with the major axis of the reflector, so that the light from each lamp is directed onto the reflecting surface of each side of the reflector and from said surface through the openings 13.

In Fig. 6 is illustrated a slightly modified form of sign, in which the sign characters are identically constructed with those previously described, but arranged in vertical alinement instead of horizontally. This form differs from the preferred form in that each sign character is provided with an independent reflector 20, arranged transverse the casing, though similar in all other respects to the reflector 15. In the modified form the incandescent lamps 21 are arranged in alinement with the major axis of each reflector, a single set of lamps being arranged between each two reflectors and serving for both.

In addition to the openings 13 and the over-lying jewels, I prefer to form each sign character with a series of minute openings 24, preferably beyond the jewels and so spaced as to outline the particular character. These openings form additional light ducts, and materially assist in the illumination of the sign.

From the construction described, it is obvious that the sign produced is of simple inpensive character, that the arrangement of the jewels and reflectors insures the maximum illumination with the minimum of illuminating medium, and that any one or more of the jewels, with the use of the particular holder described may be readily removed or replaced with the minimum exertion.

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

1. A sign character formed with openings, a jewel holder for each opening, jewels carried by the holders, said holders resting upon the outer surface of the character and disposing the jewels wholly beyond said surface, means carried by the holder for engaging the wall of the particular opening and the inner surface of the character, and means securing that portion of the holder engaging the inner surface of the character to said inner surface.

2. The combination with a jewel for sign characters, of a holder for securing said jewel to the character, said holder comprising a single disk of metal having radial projections from its peripheral edge and centrally cut out to leave a diametrically arranged member, said member being divided centrally and longitudinally and one end of each section thus provided severed from the disk, whereby to provide diametrically opposed prongs for securing the holder in place.

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

GEORGE C. NIENTIMP.

Witnesses:
CHARLES A. MERTENS,
ELIZABETH M. SCHMITZ.