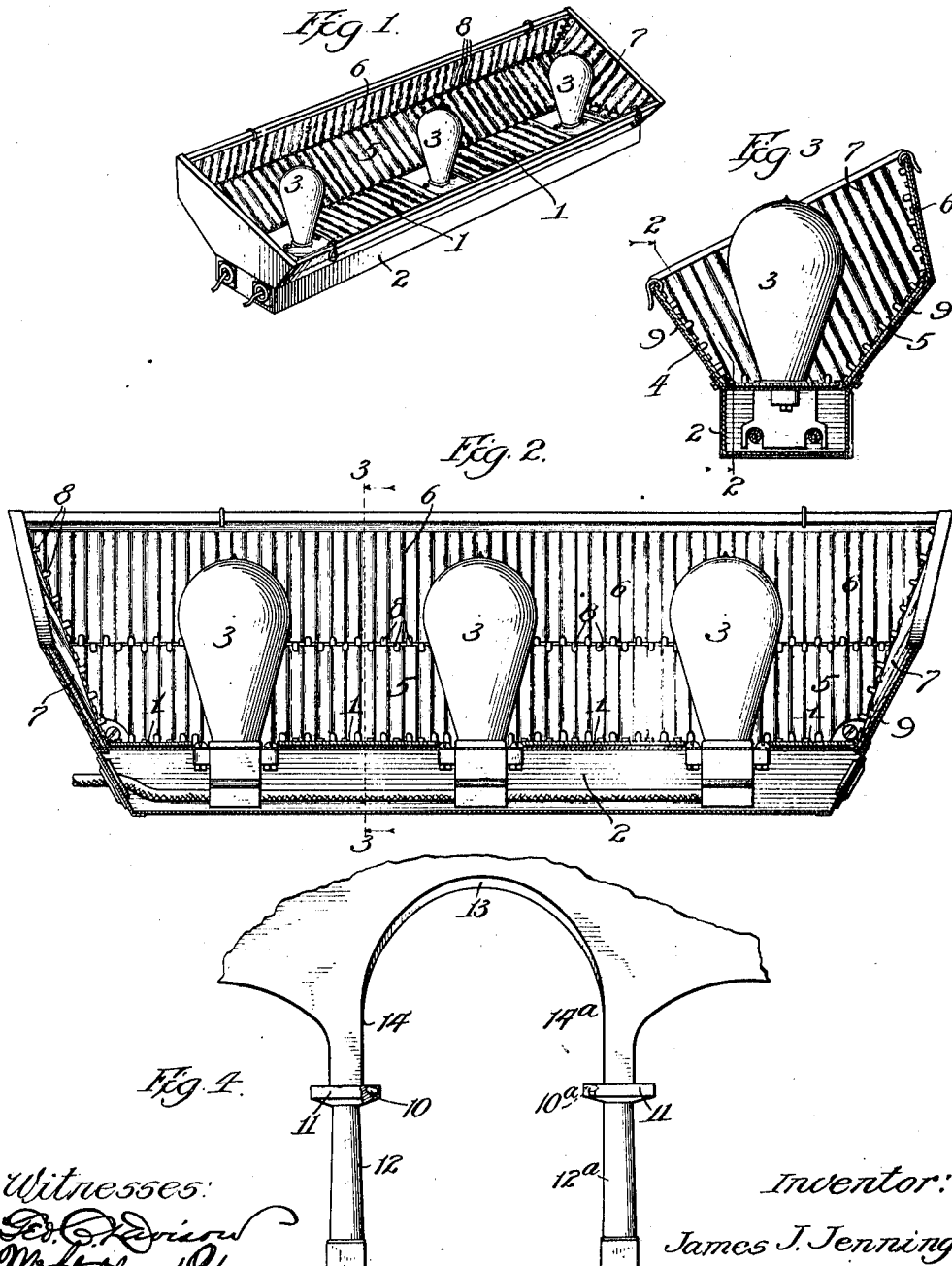


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 MEANS FOR ILLUMINATING INTERIORS OF BUILDINGS.
 APPLICATION FILED DEC. 31, 1909.

982,823.

Patented Jan. 31, 1911.



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UNITED STATES PATENT OFFICE.

JAMES J. JENNINGS, OF CHICAGO, ILLINOIS.

MEANS FOR ILLUMINATING INTERIORS OF BUILDINGS.

982,823.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed December 31, 1909. Serial No. 535,818.

To all whom it may concern:

Be it known that I, JAMES J. JENNINGS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Means for Illuminating Interiors of Buildings, of which the following is a full, clear, concise, and exact description.

My invention relates to means for illuminating interiors, such as the interiors of public buildings, and more particularly to reflectors, including the structure, arrangement and mounting thereof with the object of most effectively utilizing the light from any suitable source, as, for example, that from incandescent electric lamps.

One feature of my invention relates to the structure of the reflector itself, and my invention in this respect consists of a reflector having a base plate, above which lamps are supported, a front and a back plate each inclined outwardly from the base, and a supplemental back plate connected at its longitudinal lower edge to the upper edge of said back plate and arranged in angular relation thereto. Each end of the reflector preferably consists of a single plate having a reflecting surface, united at its bottom edge to the base at an obtuse angle thereto and having three side edges meeting with and connected to the end edges, respectively, of the front and back plates of the reflector. These several features of my invention may be more readily understood by reference to the accompanying drawings, in which,

Figure 1 is a perspective view of a reflector embodying my invention; Fig. 2 is a longitudinal sectional view on the line 2—2 of Fig. 3; Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 2; and Fig. 4 is a diagrammatic view illustrating the preferred manner of mounting a plurality of the reflectors of my invention.

Similar letters of reference refer to similar parts throughout the several views.

The base plate of the reflector preferably consists of a glass mirror or of a series of sections of a mirror 1, supported upon the top of a hollow support 2, constituting the usual well-known socket-piece for the incandescent electric lamps 3. The mirrors 1 are shown as lying in a horizontal plane parallel with the bottom surface of the hollow sup-

port 2, but it is not to be understood that my invention is limited in this respect.

The front plate 4 and the rear plate 5 are connected at their lower edges with the base 1, and are outwardly inclined, forwardly and rearwardly, respectively, forming acute angles with respect to a vertical plane intersecting the same. In the embodiment of my invention shown in the drawings, in which the base 1 lies in a horizontal plane, the outwardly inclined parts 4 and 5 form obtuse angles with said base 1.

The supplemental back plate 6 of the reflector has its lower edge abutting the upper edge of the plate 5 and is angularly inclined with respect thereto. This plate 6 is designed to reflect a portion of the light upon some particular object or objects which it is especially desired to illuminate, and hence the degree of inclination of said plate will be such as to direct a portion of the light rays in the desired direction.

The end plates 7 are in the form of irregular pentagons, the upper edges of which are flush with the upper edges of the plates 4 and 6. The plates 7 are preferably inclined outwardly in order to reflect the light from one end of the reflector across and above the other end thereof. The ends of the plates 4, 5 and 6 gradually flare outwardly from the base plate 1 to the extreme upper edges of the plates 4 and 6, and the plates 7 abut against said flared ends, thus giving said end plates the aforementioned outward inclination.

The plates 1, 4, 5, 6 and 7 are preferably glass mirrors of the usual construction, preferably having their surfaces corrugated, as indicated in the drawings, in order to more effectively diffuse the light rays. The plates may be connected at their points by metallic interlocking clips 8. In order to protect the glass plates and to more effectively hold them in position, the trough-like structure formed by the reflector plates is inclosed in a similar trough-like structure or casing 9 of sheet metal. It is thus apparent that if the reflector is mounted in position above the level of the eyes of the observer, the lamps 3 are concealed from view, while the light therefrom is reflected and diffused. It is also apparent that although the plates serve to conceal the light, none of the rays are intercepted thereby, the plates being so arranged that all the

rays from the lamps are finally reflected and directed so as to provide illumination at the points desired.

In Fig. 4, I have illustrated diagrammatically an application of my invention, which in actual practice has demonstrated that the reflectors are especially suitable for lighting the interiors of large structures, as, for example, churches or other public structures, in which thorough illumination is essential, but in which a soft, subdued light is preferable to the glare incident to the usual style of illumination.

Referring more particularly to Fig. 4, the reflectors of my invention are shown at 10, 10^a, mounted in the capitals 11 of the columns 12, 12^a which support the interior arch 13 of the building. The capitals 11 are hollowed out to receive the reflectors, which are set therein and thus concealed from view. The light from the lamps is thus diffused outward and upward. From the ceiling of the arch 13 the light rays are reflected downward into the space between the pillars 12, 12^a. The light from each of the reflectors is in the main thrown across the building upon the side opposite to which the reflector is mounted, and the entire interior is effectually illuminated by a system of cross-lighting. It has been found that even the sides of the building at the left and at the right of the pillars 12 and 12^a, respectively, are thoroughly lighted from the reflectors located at 10 and 10^a.

It is obvious that a similar arrangement of the reflectors of my invention upon opposite sides of a chamber may be employed to furnish a uniform, soft light within said chamber, irrespective of the particular construction of the ceiling thereof.

My invention is especially adapted to bring out clearly and effectively the interior decoration of a building. For example in Fig. 4, a frieze at 14 and 14^a can very readily receive an increased degree of illumination by disposing the plate 6 of the oppositely

disposed reflector at an angle which will concentrate additional light rays upon such frieze.

Those features, disclosed but not claimed herein, relating to the relative arrangement of a plurality of the reflectors and the mounting of the individual reflectors are hereby expressly reserved for a future application.

What I claim is:

1. In a reflector, the combination with a horizontally disposed hollow socket-piece, of a base plate supported upon said socket-piece, a front and back plate united to said base plate and inclined outwardly from the edges thereof, and an inwardly inclined supplemental back plate having its lower edge abutting the upper edge of said first mentioned back plate.

2. In a reflector, the combination with a base plate having a source of light mounted above the same, of a front and a back plate united to said base plate and inclined outwardly from the edges thereof, an inwardly inclined supplemental back plate having its lower edge abutting the upper edge of said first mentioned back plate, and outwardly inclined end plates abutting the ends of said other plates and having their upper edges flush with the upper edges of said front plate and said supplemental back plate.

3. In a reflector, the combination with a trough-shape portion comprising a base plate and outwardly inclined front, back and end plates, of a supplemental, inwardly inclined reflector plate having its lower longitudinal edge abutting the upper longitudinal edge of said back plate.

In witness whereof, I, hereunto subscribe my name this 29th day of December A. D., 1909.

JAMES J. JENNINGS.

Witnesses:

GEO. C. DAVISON,
EDWIN W. COLLIS.