P. SCHWICKART.

LENS FOR BUILDING LIGHTS.

APPLICATION FILED JULY 13, 1908.

922,964. Patented May 25, 1909.

Fig. 1.

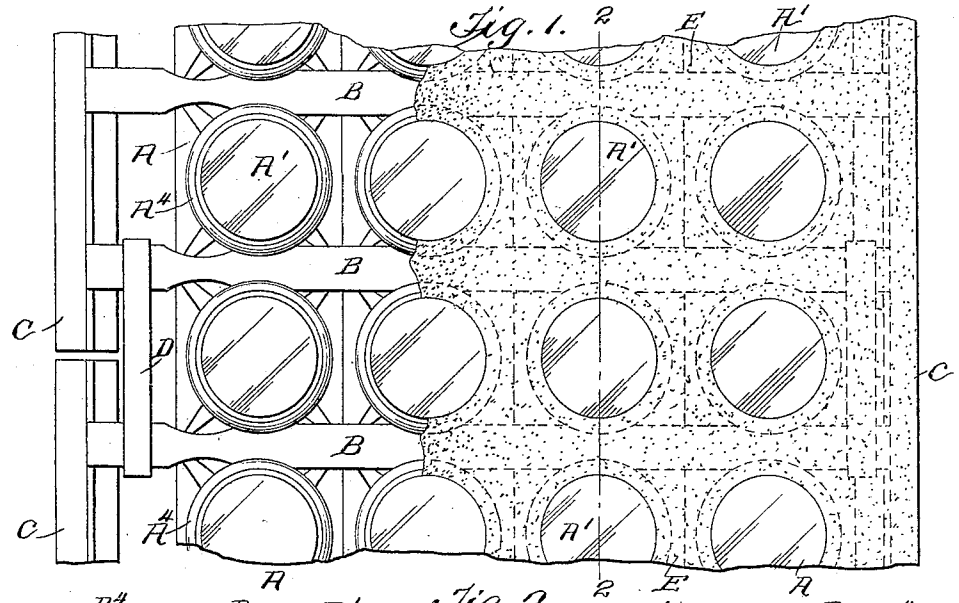


Fig. 2.

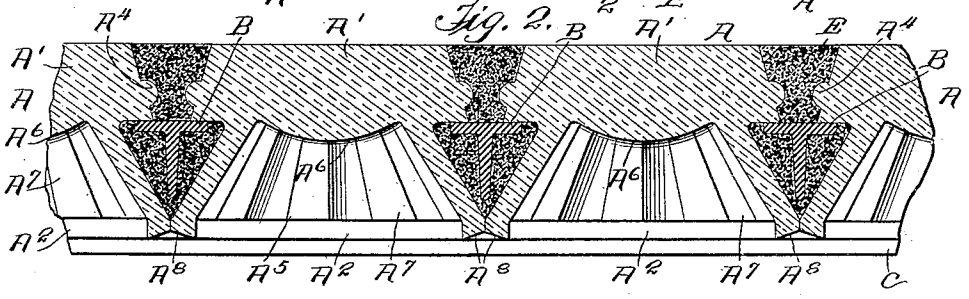
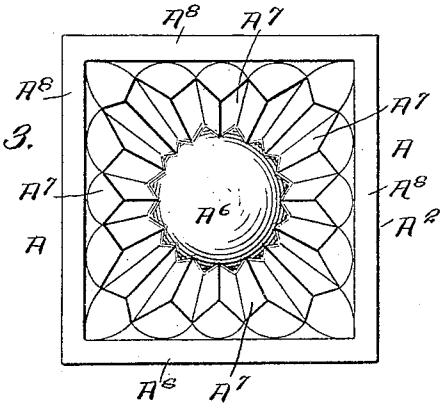


Fig. 3.



WITNESSES

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PHILIP SCHWICKART, OF NEW YORK, N. Y.

LENS FOR BUILDING-LIGHTS.

No. 922,964. Specification of Letters Patent. Patented May 25, 1909.

Original application filed October 7, 1907, Serial No. 396,221. Divided and this application filed July 13, 1908. Serial No. 443,338.

To all whom it may concern:

Be it known that I, PHILIP SCHWICKART, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Lens for Building-Lights, of which the following is a full, clear, and exact description, this being a division of the application for a building-light, No. 396,221, filed by me on October 7, 1907.

The invention relates to building-lights used in walls, skylights, floors and other parts of buildings, and its object is to provide a new and improved lens for building lights, arranged to insure a proper and uniform distribution of the rays of light over a large area.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement as applied, a portion of the cementitious material being broken out; Fig. 2 is a sectional side elevation of the same on the line 2—2 of Fig. 1; and Fig. 3 is an inverted plan view of the lens.

The lenses or glass lights A are supported on the spaced bars B of a skeleton frame, having side beams C supporting the cross bars B connected with each other at their ends by connecting and spacing bars D. Each of the lenses or building lights A is provided with a top portion A′, preferably in the form of a frustum of a cone and a square bottom portion A^2, the said portions A′ and A^2 forming shoulders or under-cuts A^3 adapted to rest on the top of the opposite sides of adjacent cross bars B, to support the lenses. Each of the top portions A′ is provided with an annular bead A^4. The square bottom portions A^2 of the lenses have tapering sides, are preferably projecting below the cross bars B, and the adjacent cross bars B are spaced apart such distances that when the lenses A are in position the sides of the square bases of adjacent lenses abut in both a transverse and a longitudinal direction, thus forming an under surface of glass of an unbroken continuity. The lower portion A^2 of each lens is provided on the under side with a recess A^5, the roof A^6 of which is convex, and the side walls are formed by prisms A^7 extending from the marginal edge of the roof A^6 downwardly and outwardly to the beveled under sides A^8 of the square base of the lens, as will be readily understood by reference to Figs. 2 and 3.

Cementitious material E, such as plastic cement, is poured into the space between the sides of adjacent lenses or glass lights A, to completely embed the cross bars B, the said cementitious material being flush at the top with the upper surfaces of the lenses A.

By having the conical top portion A′ of each lens provided with the annular bead A^4 it is evident that the material E is securely anchored in position on the top portions A′ of the lenses.

By providing the square base or under surface of the bottom portion A^2 of each lens with the beveled under sides A^8, it is evident that the rays of light passing to the bases illuminate the entire base surface, and by the arrangement described the rays of light are properly deflected and distributed in the space below the building light, so as to highly illuminate the said space.

By reference to Fig. 3, it will be seen that the prisms increase in size from the top down to the base, in order to range the prisms one alongside the other, and it will also be noticed that a prism is located in each corner of the recess. Thus by the arrangement described, a large amount of light is refracted into the space below the lenses.

By the arrangement described an exceedingly strong building light is produced, which is completely water and moisture-proof, and the lenses are capable of distributing the rays of light uniformly and over a large area.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A lens for a building light, comprising a top portion and a bottom portion, the said top and bottom portions forming shoulders for the lens, the said bottom portion having inclined sides and being recessed at the underside, the recess having a convex roof, and inclined side walls parallel to the said inclined sides.

2. A lens for a building light, comprising a

top portion and a bottom portion, the said top and bottom portions forming shoulders for the lens, the said bottom portions having inclined sides and being recessed at the underside, the recess having a convex roof, and inclined side walls parallel to the said sides and formed of prisms.

3. A lens for a building light having a square bottom portion provided with inclined sides and with a recess at the under side, the recess having inclined side walls parallel to the said inclined sides and formed of prisms.

4. A lens for a building light having a square bottom portion provided with inclined sides and with a recess at the under side, the recess having inclined side walls parallel to the said inclined sides and formed of prisms, and the said recess having a convex roof.

5. A lens for a building light, comprising a top portion and a bottom portion, the said top and bottom portions forming shoulders for the lens, the said bottom portion having inclined sides and being recessed at the under side, the recess having a convex roof, and inclined side walls parallel to the said inclined sides and formed of prisms, the latter extending from the margin of the convex roof to the base of the bottom portion.

6. A lens for a building light, comprising a top portion and a bottom portion, the said top and bottom portions forming shoulders for the lens, the said bottom portion being recessed at the under side, the recess having a convex roof, and inclined side walls formed of prisms, the latter extending from the margin of the convex roof to the base of the bottom portion, the said base having each side beveled upwardly and outwardly.

7. A lens for a building light having a square bottom portion provided with tapering sides and with a recess in the under side, the base surface of each side being beveled upwardly and outwardly.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PHILIP SCHWICKART.

Witnesses:

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EVERARD B. MARSHALL.