No. 894,708. PATENTED JULY 28, 1908.

P. SCHWICKART.

BUILDING LIGHT.

APPLICATION FILED OCT. 7, 1907.

Fig. 1.

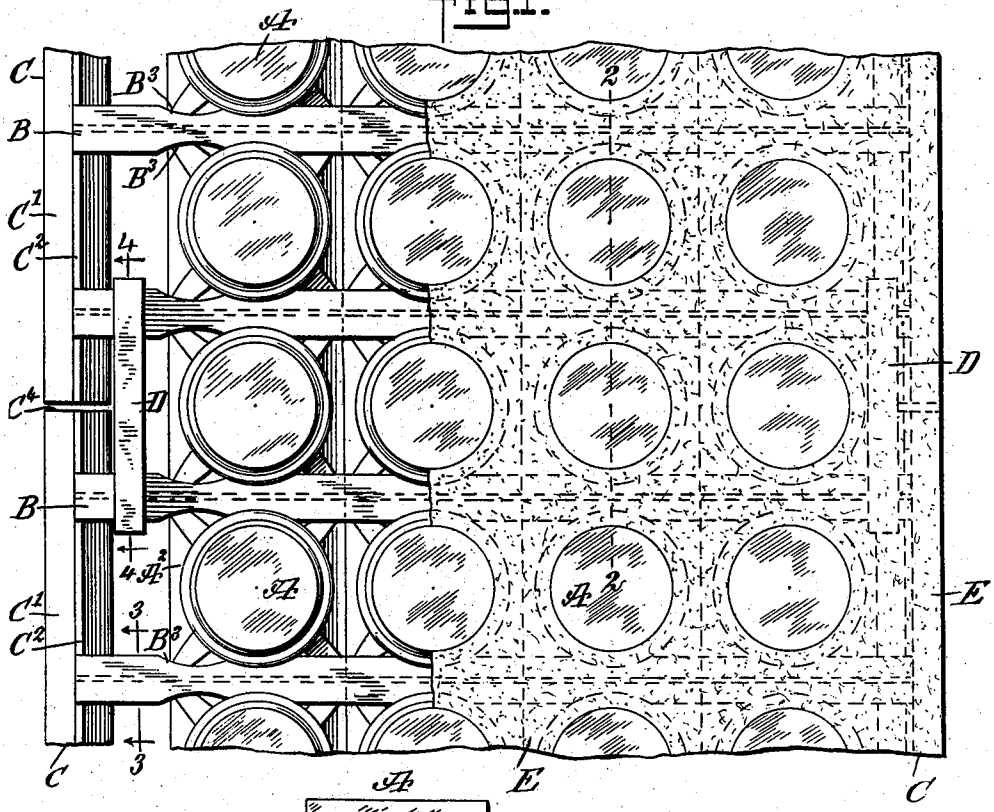


Fig. 2.

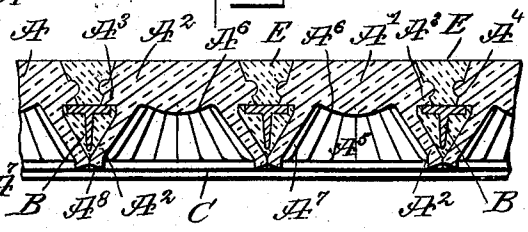
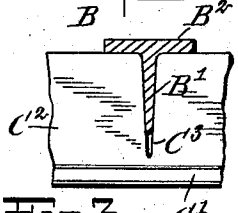


Fig. 5.



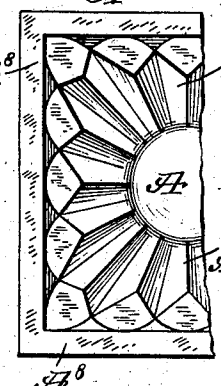
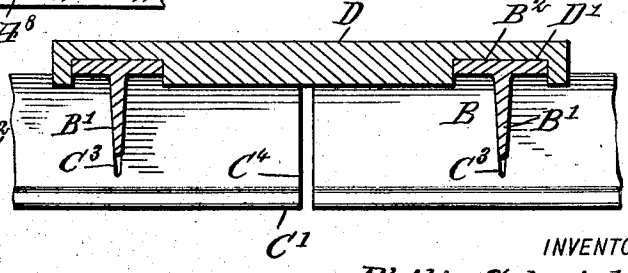


Fig. 3.

Fig. 4.



WITNESSES

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PHILIP SCHWICKART, OF NEW YORK, N. Y.

BUILDING-LIGHT.

No. 894,708. Specification of Letters Patent. Patented July 28, 1908.

Application filed October 7, 1907. Serial No. 396,221.

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 Building-Light, of which the following is a full, clear, and exact description.

The invention relates to walls, skylights, floors and other parts of buildings, and its object is to provide a new and improved building light, which is simple, durable, exceedingly strong in construction, cheap to manufacture, easily and conveniently set up, and arranged to insure a proper and uniform distribution of the rays of light.

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, 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; Fig. 3 is an enlarged sectional side elevation of part of the improvement on the line 3—3 of Fig. 1; Fig. 4 is an enlarged sectional side elevation of part of the improvement on the line 4—4 of Fig. 1, and Fig. 5 is an inverted plan view of one of the lenses.

The lenses or glass lights A are supported on the spaced cross bars B of a skeleton frame having side beams C supporting the cross bars B, each side beam being made in one or more endwise abutting sections, according to the length of the skeleton frame.

As illustrated in the drawings, the cross bars B and the side beams C are made of T-irons, the horizontal members C′ of the side beams C being placed downward, and adapted to rest on suitable foundations. The vertical members C^2 of the side beams C are provided with slots C^3, into which fit the vertical members B′ of the cross bars B, the ends of the horizontal members B^2 of the cross bars B resting on the top of the vertical members C^2 of the side beams C, as plainly shown in Figs. 3 and 4.

The cross bars B on opposite sides of the joints C^4 between the sections of a side beam C, and near the reduced portions B^3 on said cross bars, are connected with each other by a connecting and spacing bar D, formed at the under side with recesses D′, fitting over the horizontal members B^2 of the said adjacent cross bars B (see Figs. 1 and 4), to hold the said cross bars the desired distance apart, and to couple the sections of a side beam C with each other. By the arrangement described an exceedingly simple and durable skeleton frame, for supporting the lenses or glass lights A is provided, and which skeleton frame requires no screws or other fastening means for holding the parts in position.

Each of the lenses or building lights A is provided with a conical top portion A′ 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 the adjacent cross bars B to support the lenses. Each of the top portions A′ is provided with an annular bead A^4. Now in order to place the lenses A in position on the cross bars B, the horizontal members B^2 thereof have cut-out portions B^3 near one of the side beams C, to allow of conveniently slipping the lenses in place on the adjacent cross bars B.

The lower portions A^2 of the lenses are preferably pyramidal, and project 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 longitudinal direction, thus forming an under surface of glass of an unbroken continuity. The lower pyramidal portion A^2 of each lens is provided 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 Fig. 5. 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.

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

The building light shown and described can be cheaply manufactured, quickly set up and used for various purposes, such as covers for vaults, for skylights, floors and the like.

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

1. A building light, comprising side beams having spaced notches, cross-bars fitting into the said notches, lenses supported on the said cross bars and projecting above and below the same, the under side of the lenses forming a surface of unbroken continuity, and a cementitious material filling the spaces between the side walls of adjacent lenses and embedding the said cross-bars.

2. A building light, comprising spaced side beams of T-iron, and having the vertical member provided with spaced notches leading out through the edge of the same, cross-bars of T-iron and having their vertical members fitting the said notches, the horizontal member resting on the vertical members of the said side beams, and lenses supported on the said cross bars.

3. A building light, comprising spaced side beams of T-iron, and having the vertical members provided with spaced notches, cross bars of T-iron and having their vertical members fitting the said notches, the horizontal member resting on the vertical members of the said side beams, and lenses supported on the said cross bars, the lenses projecting above and below the cross bars and their undersides forming a surface of unbroken continuity.

4. A building light, comprising spaced side beams of T-iron and having its vertical member provided with spaced notches, cross bars of T-iron and having their vertical members provided with spaced notches, cross bars of T-iron and having their vertical members fitting the said notches, the horizontal member resting on the vertical members of the said side beams, lenses supported on the said cross bars, the lenses projecting above and below the cross bars, and their undersides forming a surface of unbroken continuity, and a cementitious material filling the spaces between the side walls of the said lenses and embedding the said cross bars.

5. A frame-work for building lights, comprising spaced side beams each having a base and an integral vertical member provided with notches leading out through the edge of the same, and cross-bars supported on the said side beams and having a vertical member fitting the said notches, the said cross bars having horizontal members resting on the top of the vertical members of the said side beams.

6. A frame-work for building lights, comprising spaced side beams each having a base and an integral vertical member provided with notches leading out through the edge of the same, cross bars supported on the said side beams and having a vertical member fitting the said notches, the said cross bars having horizontal members resting on the top of the vertical members of the said side beams, and lenses having shoulders resting on the sides of the horizontal members of the cross bars.

7. A frame-work for building lights, comprising spaced side beams, each having a base and an integral vertical member provided with notches, cross bars supported on the said side beams and having a vertical member fitting the said notches, and a connecting and spacing bar for engagement with the adjacent cross bars at the joint of the side beams.

8. A frame-work for building lights, comprising spaced side beams, each having a base and an integral vertical member provided with notches, cross bars supported on the said side beams and having a vertical member fitting the said notches, and a connecting and spacing bar having recesses on its under side for engagement with horizontal members of the said cross bars located on opposite sides of the joint between the side beams.

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

PHILIP SCHWICKART.

Witnesses:
EVERARD B. MARSHALL,
PHILIP D. ROLLHAUS.