

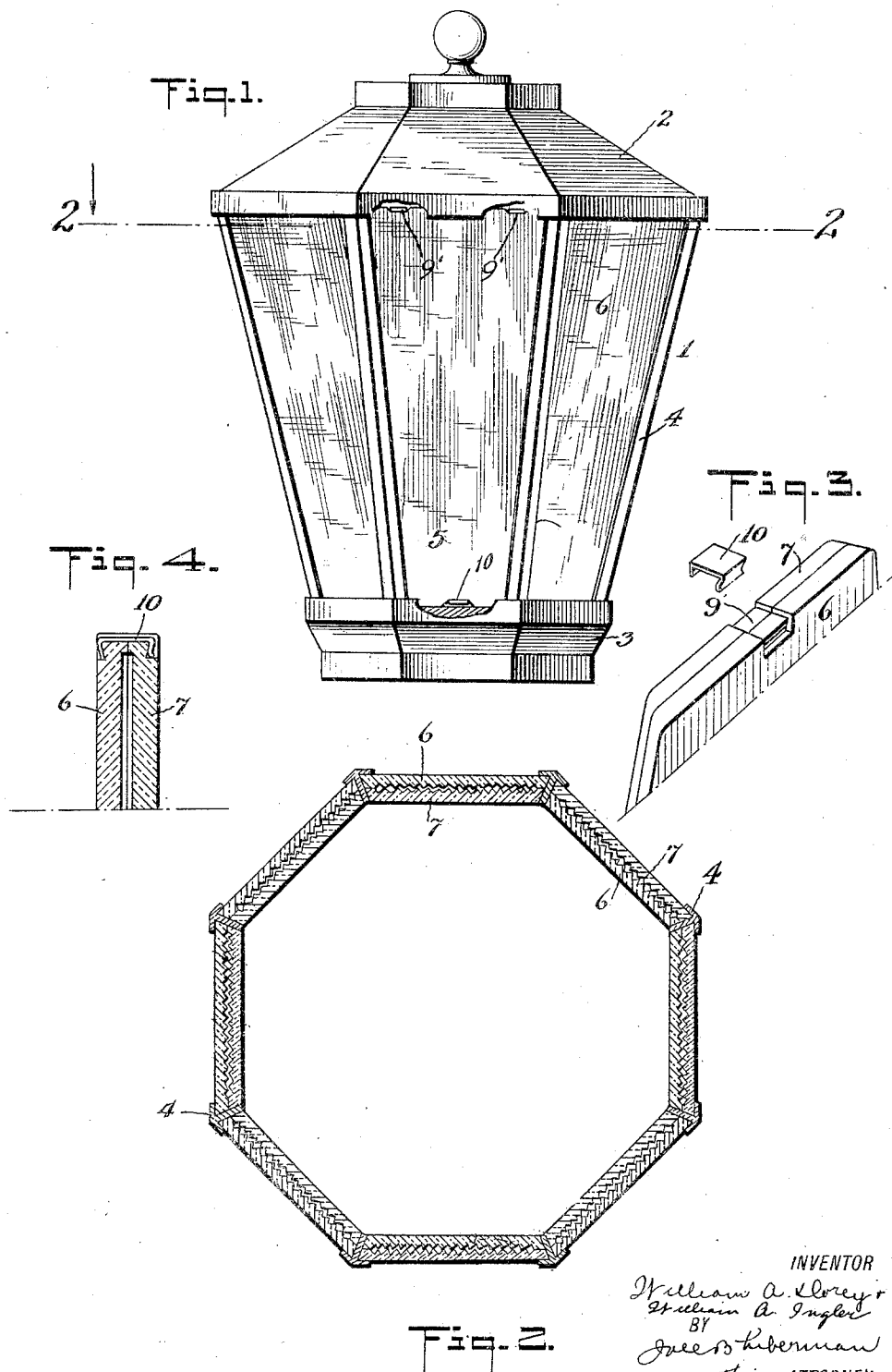
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LUMINAIR

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UNITED STATES PATENT OFFICE.

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MESNE ASSIGNMENTS, TO HOLOPHANE COMPANY, INC., OF NEW YORK, N. Y., A
CORPORATION OF NEW YORK.

LUMINAIR.

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The object of this invention is the construction of a tightly sealed double lantern plate unit for use in lantern frames of polygonal construction adapted to give minimum loss of light at the upright members of the lantern frame and permit a light strong simple construction of the frame itself. This is accomplished by making the individual glass plates with the side edges beveled so that the sides of neighboring series of plates are parallel to each other.

Fig. 1 is a side elevation of a lantern embodying the principles of our invention;

Fig. 2 is a horizontal cross section on line 2—2 of Fig. 1;

Fig. 3 is a perspective view of the lower edge of a pair of plates put together with fastening means disclosed;

Fig. 4 is a vertical cross section through the center line of the lower part of a pair of plates.

In the figures 1 is a lantern, especially adapted for street or post lighting, 2 is the top and 3 the base which can be of any desired construction. The side frame members are shown at 4 and are fastened to the top or bottom or are integral with the same. The plates here shown are put together in pairs comprising an outer plate 6 and an inner one 7. Two sets of grooves or indentations 9' which are carried into the outer faces of the plates for a slight distance and these portions of the grooves converge toward each other, are preferably placed on the upper edge of the plates, which grooves are adapted to retain clips 10' having convergent legs or jaws to engage the portions of the grooves in the outer faces of the plates for the purpose of rigidly holding the plates together. A single set of grooves 9 identical to the grooves 9' is placed at the center of the bottom of the plates, such plates being fastened together by a clip 10 identical to the clips 10'. The form and construction of the grooves and clips are shown in Fig. 4.

One of the main features of the invention is its adaptability to a lantern of polygonal form the side edges of the plate being sloped to fit in the frames according to the number

of sides in the polygon. The invention is here shown in connection with an octagonal lantern, in which the sides are sloped at about 76° , this angle having been found desirable from the point of view of appearance and assembly. In an octagonal lantern with perpendicular sides the angle of the bevel of each plate would be one-half of one-eighth of the entire circle or $22\frac{1}{2}^\circ$, and after allowance for the slope of 76° , the angle is reduced to about 21.9° . For a hexagonal lantern with perpendicular sides the bevel angle will be one-half of one-sixth of the circle or 30° with a reduction proportionate to the slant of the sides.

The great advantage of using edges of the exact bevel required to bring the adjacent edges parallel when in place in the lantern is that by this means the essential requirements of the frame for holding the glass panels in place is reduced to the simplest possible means. If proper provision be made for holding the side frame members at top and bottom it would be quite possible to hold the plates keyed in place by means of the outer members only without any web intermediate between the plate surfaces. In practice, however, it is desirable to use a web in the side frame members because this permits a light strong construction and produces a seat for gaskets to protect the edges of the plates. Or if it is desired the webs alone can be used for the same purpose without members.

The use of such webs with or without exterior side members does away with the necessity of any interior fastening means, which otherwise would interfere with light passing through the glass.

We claim:

A polygonal lantern comprising a frame, forming flat inclined sides, a glass plate adapted to lie in each pane frame, each plate comprising two pieces of glass of substantially identical size with all of their outer edges in contact and the inside edges bevelled to permit the sides of neighboring plates to form a moisture-proof lantern, the opposite edges of the two pieces of glass being notched, said notches being extended a slight

distance into the outer faces of the said pieces, the extensions of the notches being disposed in inwardly convergent relation to each other, and resilient clips having convergent legs straddling the plates and seated in the notches with the legs countersunk in the convergent portions of said notches

to hold the plates in close contact with each other.

Signed at Newark, in the county of Licking and State of Ohio, this 13th day of August, 1924. 10

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