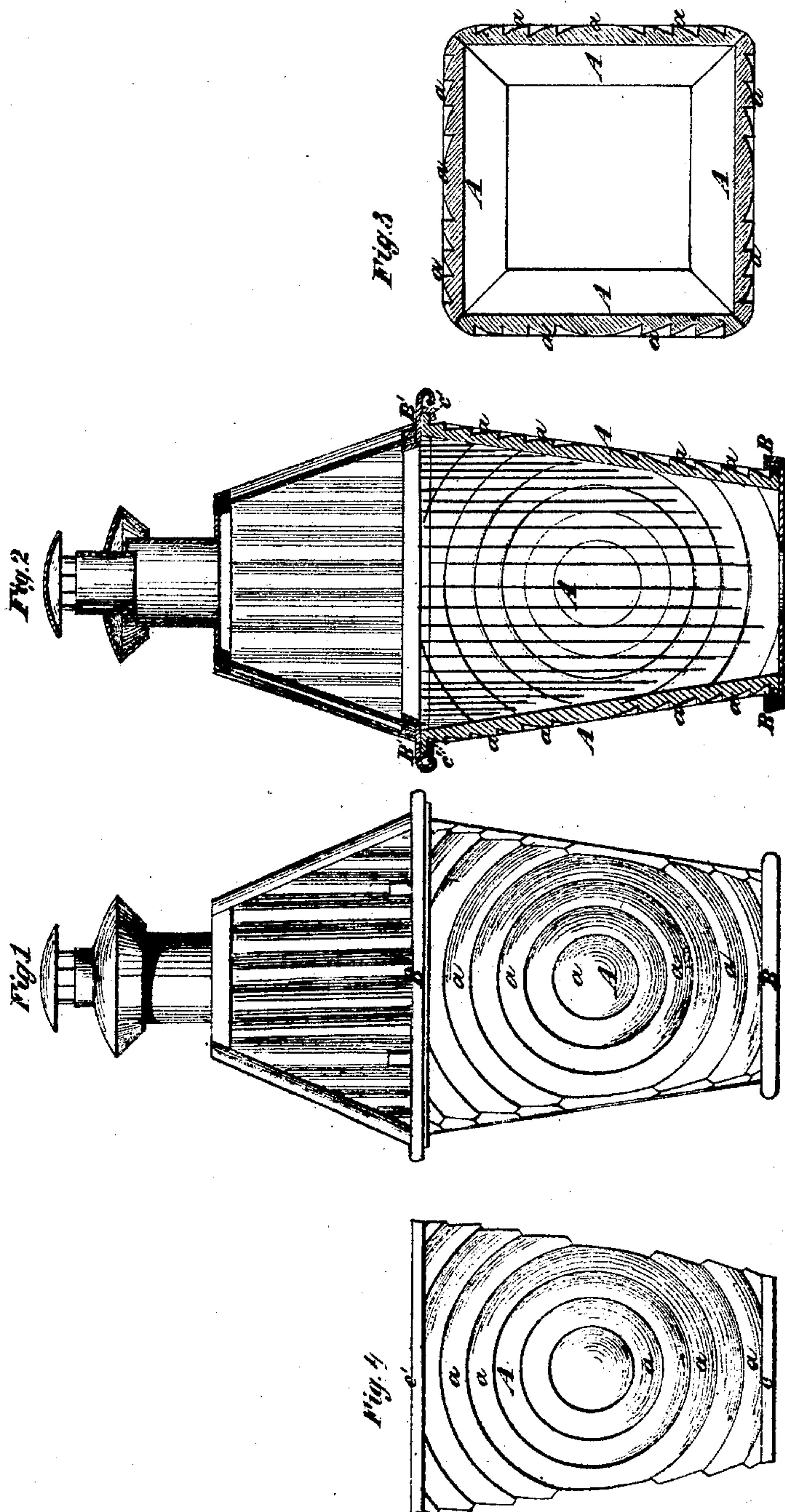


JOSEPH N. ARONSON.
Improvement in Street-Lamps and Lanterns.
No. 114,513. Patented May 9, 1871.



Witnesses.
Henry T. Brown
Fred. Haynes

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JOSEPH N. ARONSON, OF NEW YORK, N. Y.

Letters Patent No. 114,513, dated May 9, 1871.

IMPROVEMENT IN STREET-LAMPS AND LANTERNS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEPH N. ARONSON, of the city, county, and State of New York, have invented certain new and useful Improvements in Street and other Lamps and Lanterns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification.

This invention consists, first, in the construction of street and other lamps and lanterns with their sides composed of a series of panes or panels of glass having their surfaces so formed in molds in which they are cast or pressed as to present a series of bosses having the character of lenses by which the light is refracted in the direction required.

It consists, secondly, in securing together the glass panes or panels of which the sides of a street-lamp or lantern are composed by means of external flanges or tongues provided along the top and bottom edges of such panes or panels, and grooved bands into which the said flanges are so received as to be bound together laterally and prevented from vertical displacement without the aid of upright frames, for the reception of the side edges of the said panels or of rods or any other devices which obstruct the light in a horizontal direction.

Figure 1 in the accompanying drawing is a side view of a street-lamp constructed according to my invention.

Figure 2 is a vertical section of the same.

Figure 3 is a horizontal section of the same.

Figure 4 is a face view of one of the glass panes or panels forming one side of the lamp.

Similar letters of reference indicate corresponding parts in the several figures.

A A are the panes or panels constituting the sides of the lamp, made of cast or pressed glass with their outer surfaces presenting a series of concentric bosses, *a a*, in the form of a polyzonal lens, and having tongues *c c* extending along the exteriors of their upper and lower edges.

These panes or panels are represented as having their general form flat, but they may be of concavo-convex or other curved form.

Instead of having polyzonal bosses *a a* the bosses may be of any other configuration or arrangement by which the light within the lamp will be refracted in a desirable direction.

The bosses may project from the exterior or interior surfaces or from both.

The side edges of the said panes or panels are mitered or beveled to fit together closely, as shown in fig. 3, without the interposition of any metal framing.

B is a grooved metal band surrounding the lower edges of the panes or panels A A, and receiving within its groove the tongues *c c* provided along the exteriors of the said edges.

B' is a grooved metal band surrounding the upper edges of the panes or panels, and receiving within them the tongues *c' c'* provided along the exteriors of the said edges.

These bands may be made of tin plate or other sheet metal of the same polygonal form as the sides of the lamp are intended to present, and may first be made flat or of rebate form, and afterward have their edges turned over the tongues *c c* and *c' c'*, to form the grooves which receive the said tongues, and to make them clasp the said tongues firmly that they may hold the panes or panels A A closely and securely together at their side edges, which unite to form the corners of the lamp, and may secure the said panes or panels against vertical displacement, thereby dispensing with the necessity for any vertical ribs or rods or other vertical framing which would obstruct the light.

The lower band B may constitute the base of the lamp, and the band B' may support the head or upper part of the lamp, which may be constructed in any known or suitable manner.

Lanterns may be constructed in the same manner as the street-lamps as herein described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The construction of lamps and lanterns with their sides composed of panes or panels of pressed or cast glass, having on their surfaces a series of bosses, substantially as herein described.

2. The combination of the tongues *c c c' c'*, on the exteriors of the upper and lower edges of the glass panes or panels, and the grooved bands B B', substantially as and for the purpose herein described.

J. N. ARONSON.

Witnesses:

HENRY T. BROWN,
FRED. HAYNES.