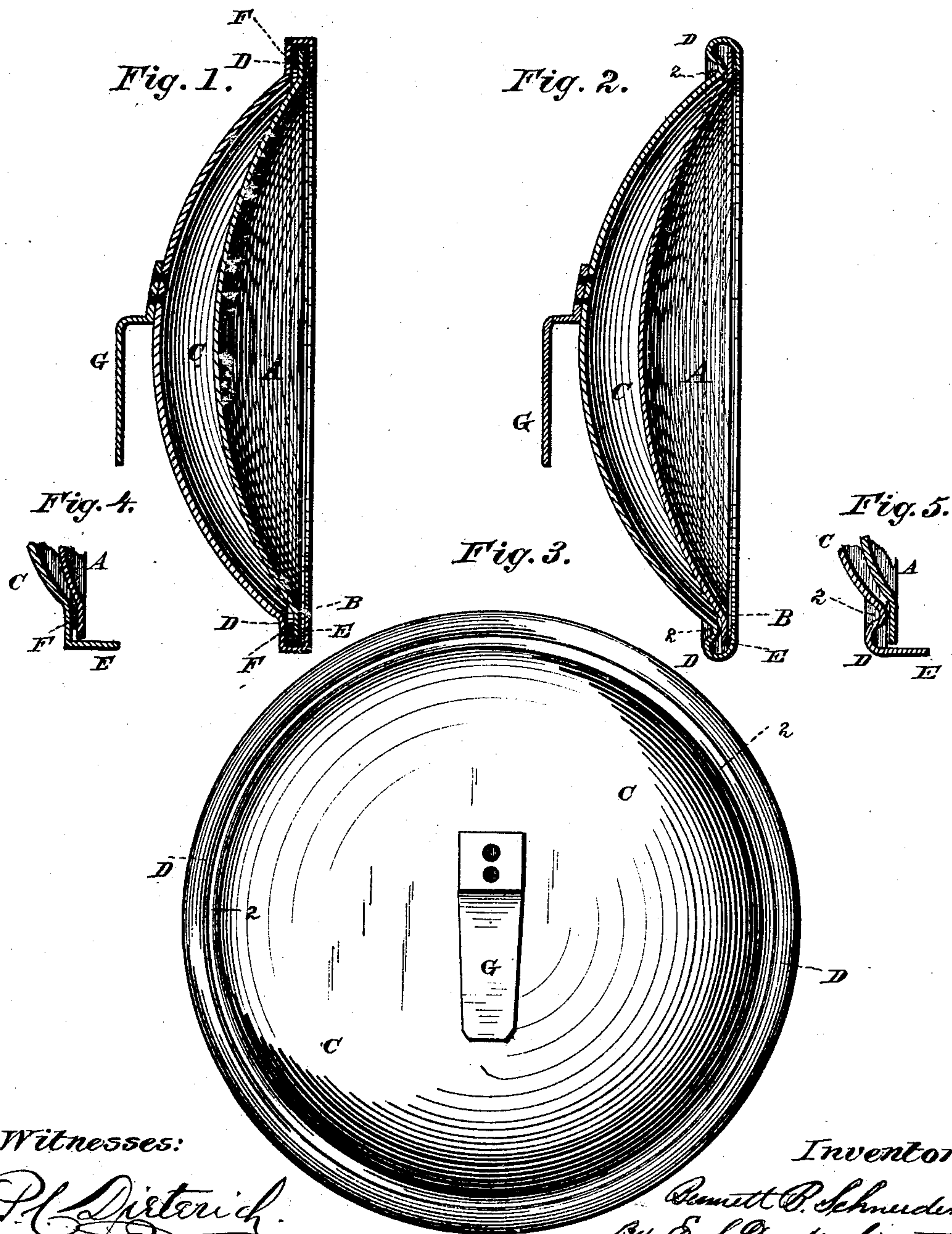


(No Model.)

B. B. SCHNEIDER.
REFLECTOR.

No. 246,038.

Patented Aug. 23, 1881.



Witnesses:

P. H. Dietrich.
A. H. Krause.

Inventor:

Bennett B. Schneider
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UNITED STATES PATENT OFFICE.

BENNETT B. SCHNEIDER, OF ORANGE, NEW JERSEY.

REFLECTOR.

SPECIFICATION forming part of Letters Patent No. 246,038, dated August 23, 1881.

Application filed February 9, 1881. (No model.)

To all whom it may concern:

Be it known that I, BENNETT B. SCHNEIDER, a citizen of the United States, residing at Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Reflectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to reflectors to be used with lamps, and has for its object a reduction in the cost and an article of greater durability.

The novelty of my invention consists in my manner of securing a concave reflector of silvered glass in a metal shell having a greater degree of concavity than the silvered-glass reflector, their only point of contact being near their outer edges. So secured, the silvered surface of the glass reflector, by being inclosed within the metal shell, is protected from any contacts or abrasions which would mar its surface, and is also made much stronger than when not so supported and protected by the metal shell or back.

In the accompanying drawings, Figures 1 and 2 are vertical central sections. Fig. 3 is an elevation of the back side, and Figs. 4 and 5 are sectional views of the outer portion of the shell, showing the condition of its outer edge previous to securing the reflector in its place.

Like letters of reference denote corresponding parts in each of the figures.

A represents the glass reflector silvered upon its convex surface; B, a plain annular rim surrounding the silvered or convex portion.

C represents the protecting metal shell, and D its annular rim, upon which the rim B of the reflector rests.

E represents the lip of the metal shell, which incloses and retains the reflector when in place.

F is a ring of elastic material, and G is the tongue by which the reflector, when completed, is attached to the lamp or bracket.

In manufacturing my reflector I first take a disk of sheet metal of the proper size, and by means of a power-press and dies of a proper

conformation I depress all of that portion of the disk of metal inside the annular rim D to the desired concavity, leaving the lip E projecting at a right angle from the rim D, as in Figs. 4 and 5. I then rivet or otherwise attach the tongue G, or what other means I desire to use to attach the reflector, to the lamp or bracket. Having then properly formed and silvered my reflector A, I place it with its concave surface outward within the shell C, with its rim B resting upon the shoulder D of the shell; or, if I desire so to do, with the ring F of elastic material interposed between B and D; then, placing the shell C, as thus prepared, in a press, resting therein upon its shoulder D, by the action of the press I bring down a closing-die upon the upper and outer edge of the rim E, turning it down upon the surface of the glass rim B, thus securing the shell and the reflector together.

By making the resting-place for the glass as shown in Figs. 2 and 5, I provide an elastic resting-place for the glass during the process of closing down the lip E, as during this operation the shell C rests only upon the outer edge, and is not supported at the point marked 2 in Fig. 5, upon the inside of which the glass rim rests. Thus while the force of the closing-die is being exerted upon the lip E the rim B is not compressed between two rigid metal surfaces, but is relieved by the elasticity of the metal contiguous to 2 in Fig. 5.

The elastic ring F, or the elastic shoulder 2, may be dispensed with without prejudice to my invention; but, owing to the difficulty of procuring glass reflectors of uniformity in thickness, they will be found of service in providing for variations of thickness in the glass.

The rim B may be omitted in constructing the glass reflector, and the lip E be closed down upon the inward-sloping edge of the reflector, the omission of the rim B not affecting my invention.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A reflector composed of the shell C, having shoulder D, and the reflector A, secured together by the lip E.

2. A reflector composed of the shell C, hav-

ing shoulder D, provided with an elastic bearing, and the reflector A, having shoulder B, secured together substantially as shown and described.

5 3. A reflector shell or back C, with the elastic shoulder 2, and the lip E, substantially as described, and for the purpose set forth.

4. A reflector, A, shell or back C, having

shoulder D, and lip E, with a provision for its attachment to a lamp or bracket, substantially as set forth. 10

BENNETT B. SCHNEIDER.

Witnesses:

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