

No. 836,819.

PATENTED NOV. 27, 1906.

W. A. McCOY & W. S. KUTSCHER.  
REFLECTOR.

APPLICATION FILED JUNE 20, 1906.

FIG. 1

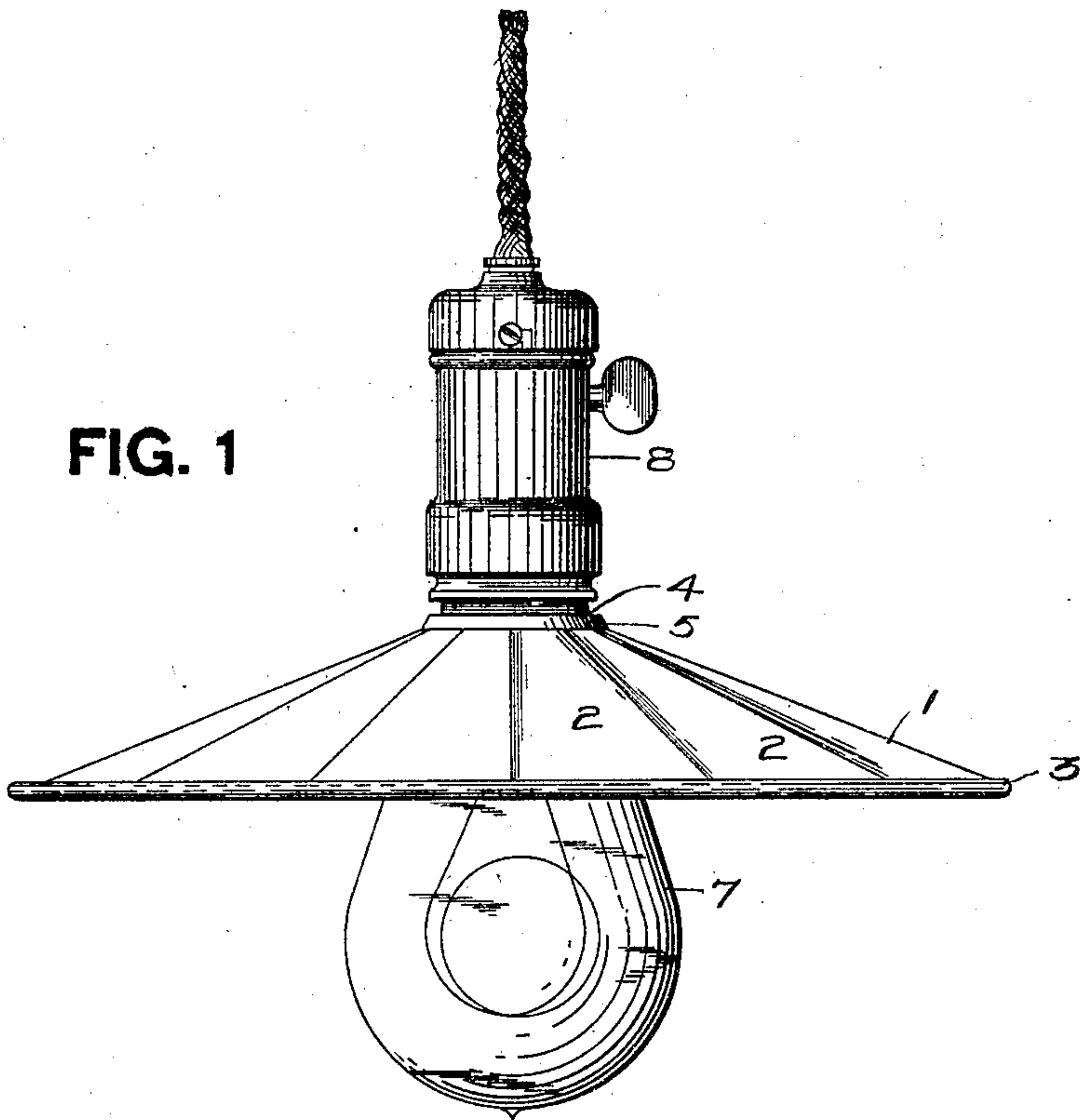
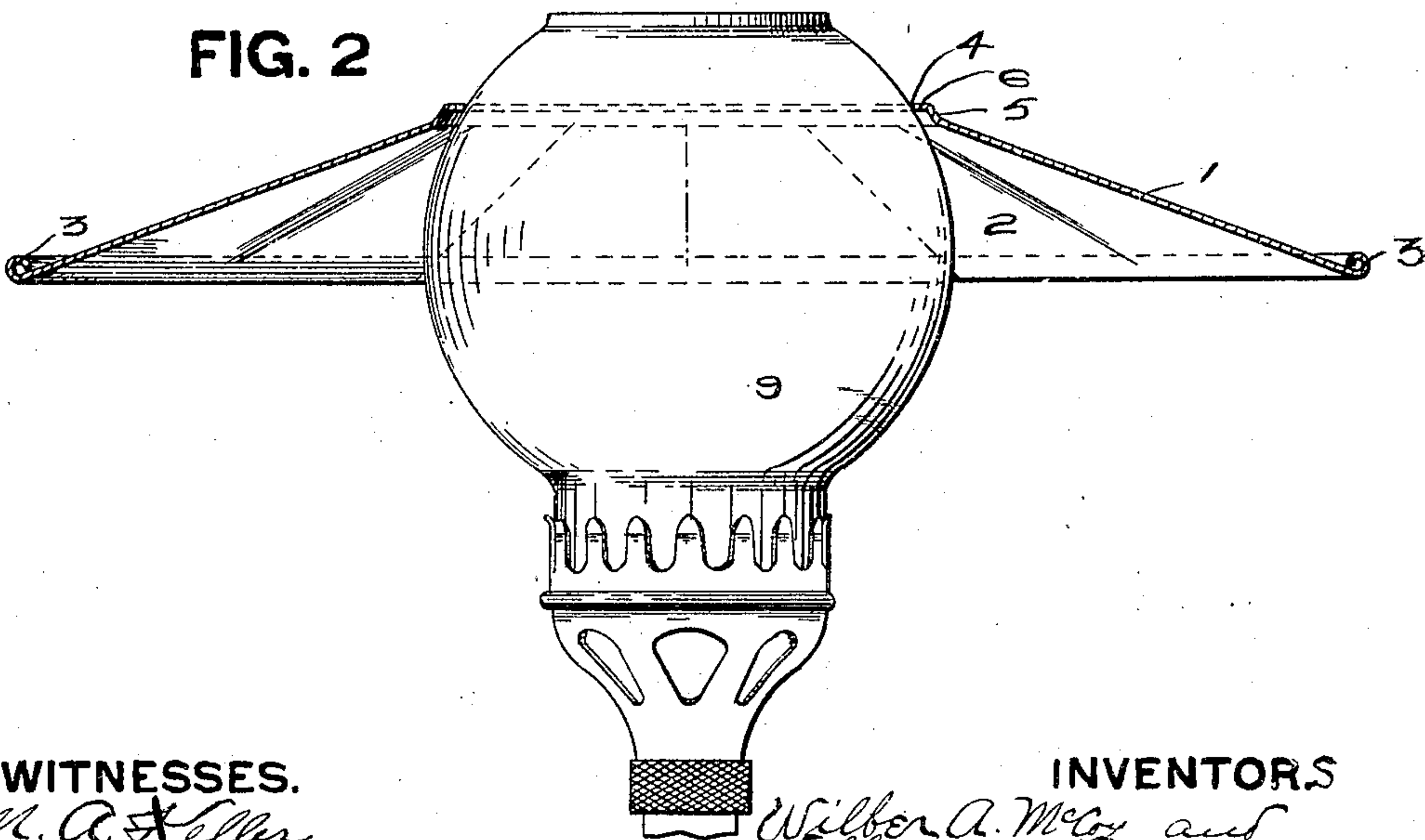


FIG. 2



WITNESSES.

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# UNITED STATES PATENT OFFICE.

WILBER A. McCOY AND WILLIAM S. KUTSCHER, OF ALLEGHENY,  
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## REFLECTOR.

No. 836,819.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed June 20, 1906. Serial No. 322,514.

*To all whom it may concern:*

Be it known that we, WILBER A. McCOY and WILLIAM S. KUTSCHER, citizens of the United States, residing in the city of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented or discovered new and useful Improvements in Reflectors, of which the following is a specification.

Our invention consists in a new and improved shade or reflector for use in connection with oil, gas, electric, or other character of light. It is made of thin metal, preferably stamped integrally from a sheet of aluminium, and adapted to be sustained in its operative position by direct contact by the edge of thin metal upon the glass of the lamp chimney or globe, the metal being so stamped or bent that its thin unfinished edge impinges directly upon the glass. The thinness of the metal permits it to readily accommodate itself to the temperature of the glass, so that the same is not cracked by the adjustment of the shade or its expansion or contraction under varying temperatures.

We find aluminium especially adapted for our purpose, as it readily accommodates itself to the temperature of the glass, and at the same time the body of the shade does not become overheated. It is also peculiarly useful, as it has a natural reflecting-surface of high efficiency which does not become destroyed or clouded by the high temperature to which it may be subjected.

We prefer to form the reflector as the frustum of a flattened pyramid having any desired number of sides or reflecting-faces. In the drawings twelve faces are shown; but the number may be varied as desired or the reflecting-surface be a plane conical one. We prefer to make both the upper and lower surfaces of the shade as reflectors, so that the light will be thrown both upward and downward, if desired.

In the accompanying drawings, Figure 1 is a side elevation of our reflector mounted on an incandescent electric light, while Fig. 2 is a vertical section of the same mounted on the chimney or globe of an incandescent gas-light.

The following is a detailed description of the drawings.

1 is a multiple reflector or shade, preferably stamped integrally from a thin sheet of

metal, such as aluminium, in substantially the form and contour shown, having a plurality of reflecting-faces 2 2. The outer edge 3 of said reflector is preferably annular and turned or rolled up to form a bead which serves both to give a finished appearance and to strengthen and stiffen the thin metal. The metal of the reflector adjacent to the central opening 4 is preferably first bent or struck up in an annular collar 5 to clear the glass of the globe or chimney and then bent inwardly to form the ring 6, substantially horizontal, whose thin edge impinges directly against the glass of the chimney or globe and supports the reflector in place.

It is evident that the only portion of the metal which touches the glass is this thin edge, which readily accommodates itself to the temperature of the glass, and thus avoids cracking or rupturing the same. These reflectors are made of different sizes and having different-sized central openings 4 to adapt them to different requirements. Thus a shade for an electric globe, as shown in Fig. 1, is preferably of smaller area than a gas-light illustrated in Fig. 2, the central openings being proportioned for the uses in view. Thus the central opening 4 of the shade shown in Fig. 1 is of the proper size to fit over the shank of the electric globe 7 before the same is screwed or inserted into its socket 8. In the case of the gas-light shown in Fig. 2 the shade is provided with a larger opening 4 to fit down the desired distance on the chimney or globe 9, the thin edge of the metal resting on the glass of the chimney. In the latter case we prefer to permit the shade to descend far enough on the chimney so that the light is reflected downwardly by the lower surface and diffused and reflected upwardly and outwardly through the room or apartment by the upper surface, thus effecting a double reflection.

Among the advantages of our improved shade may be mentioned the following: It needs no support, such as a wire frame or asbestos ring, but may be rested directly on the glass without fear of breakage, its simplicity of construction renders it much cheaper than the forms of shades now in use, and it is practically indestructible. The reflecting-surfaces run up to the chimney, so that no light is allowed to flow upwardly be-



tween the chimney and the shade; but the full illumination is caught by the shade and reflected.

What we desire to claim is as follows:

5 1. In lighting, a reflector stamped integrally of a sheet of thin metal and consisting of an inclined reflecting portion with a rigid integral substantially horizontal ring in-  
turned around the central opening so that  
10 the thin edge of the metal impinges against the chimney or globe, substantially as and for the purpose set forth.

2. In lighting, a reflector stamped integrally from a sheet of thin metal, having an

inclined reflecting portion and stiffened by 15  
forming a rigid integral substantially vertical ring and a rigid integral substantially horizontal ring of said material surrounding the central opening, substantially as and for the purpose set forth. 20

Signed at Allegheny, Pennsylvania, this 19th day of June, 1906.

WILBER A. McCOY.  
WILLIAM S. KUTSCHER.

Witnesses:

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H. L. ROSS.