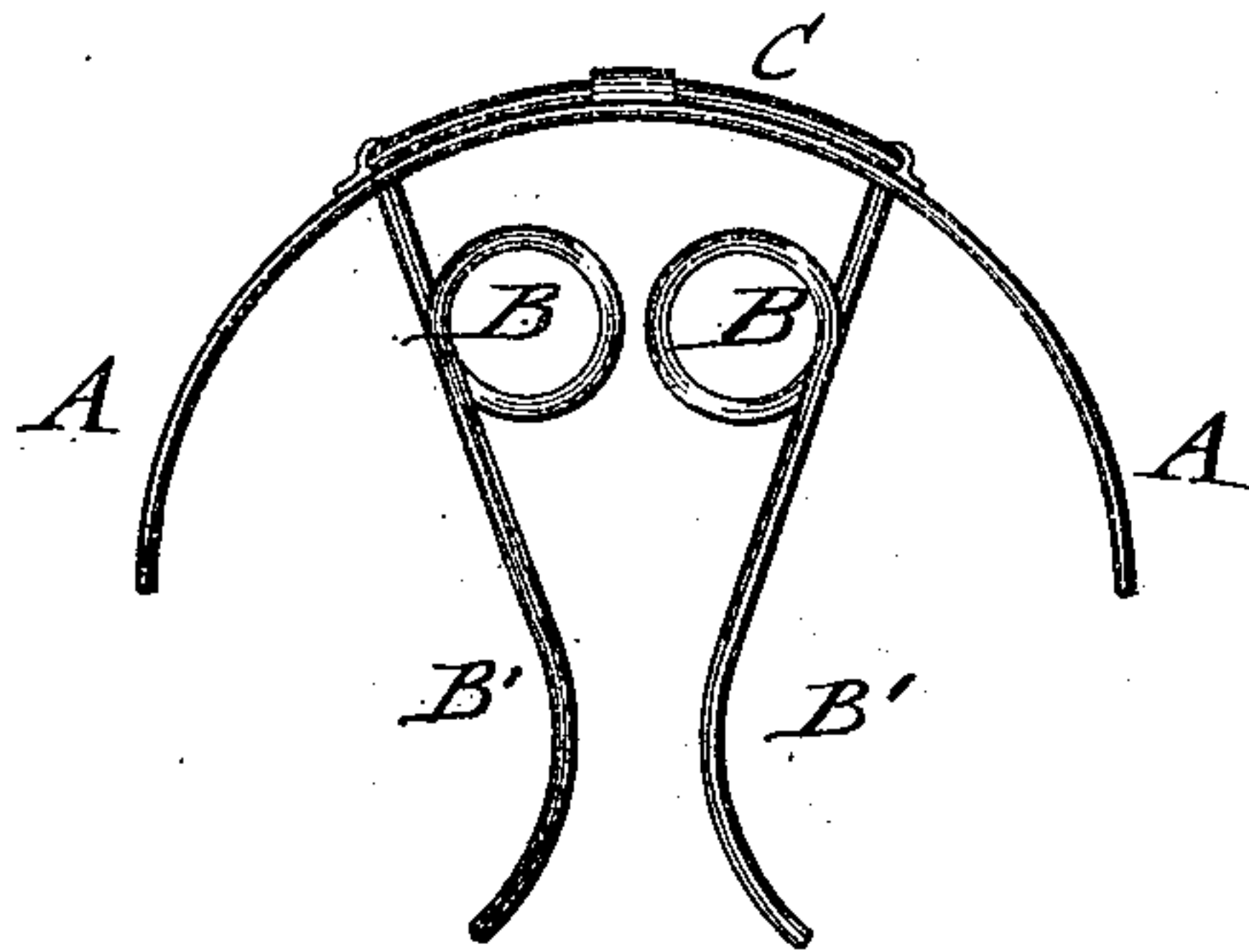


M. P. & J. F. WARNER.  
LAMP-REFLECTOR.

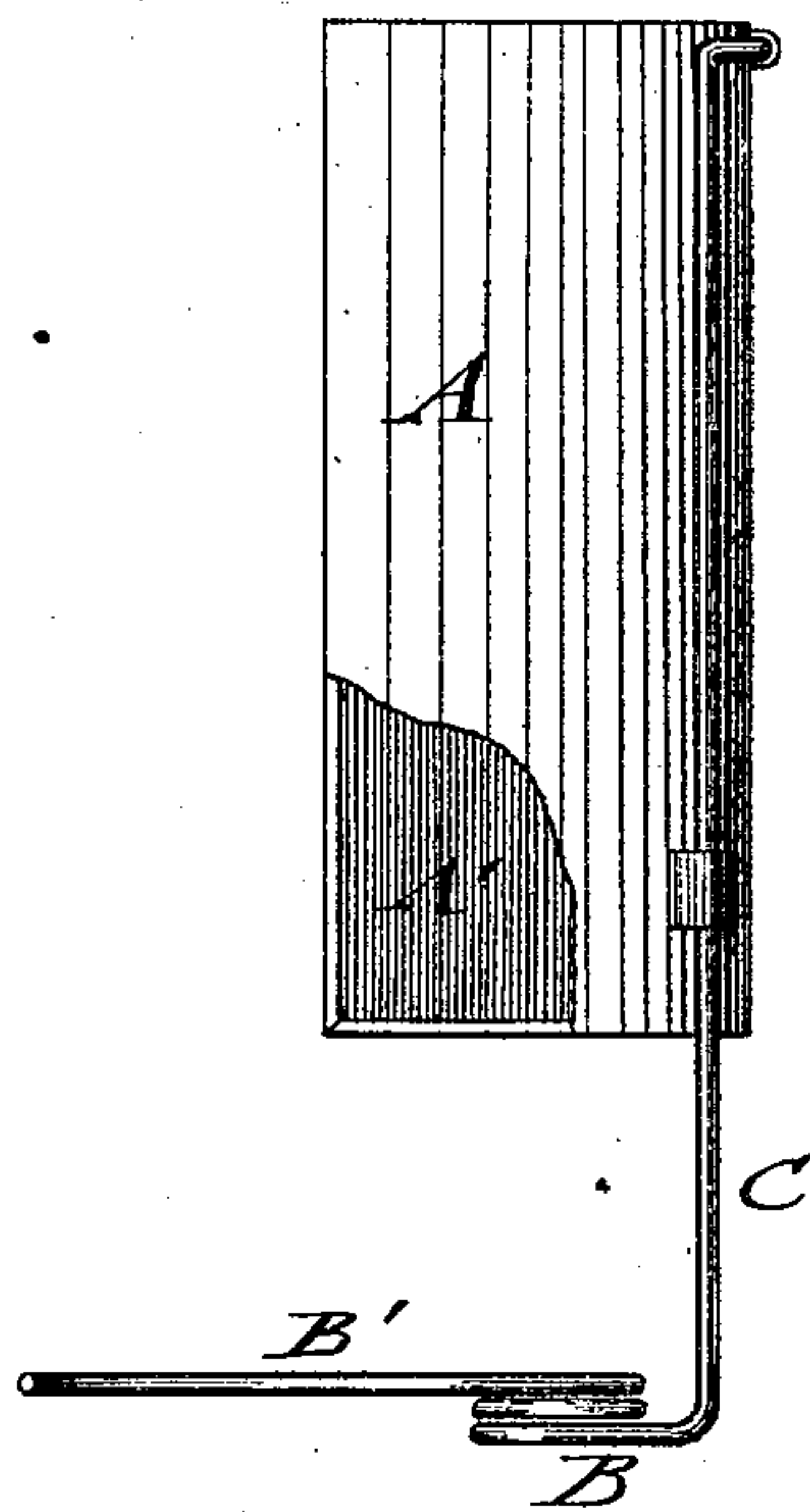
No. 179,632.

Patented July 4, 1876.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

*H. Rydquist.*  
*John Goethals*

INVENTOR:

*M. P. Warner*  
*J. F. Warner*  
*Munn*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE

MARTIN P. WARNER AND JABEZ F. WARNER, OF MORRISON, ILLINOIS.

## IMPROVEMENT IN LAMP-REFLECTORS.

Specification forming part of Letters Patent No. **179,632**, dated July 4, 1876; application filed May 9, 1876.

*To all whom it may concern:*

Be it known that we, MARTIN P. WARNER and JABEZ F. WARNER, of Morrison, in the county of Whitesides and State of Illinois, have invented a new and Improved Lamp-Reflector, of which the following is a specification:

With accompanying drawing, Figure 1 represents a top view, and Fig. 2 a side view, of our improved lamp-reflector.

Similar letters of reference indicate corresponding parts.

The object of our invention is to furnish an improved reflector for lamps of all kinds, which is readily attached, adjusted, and taken off and kept free of dirt and tarnish without the necessity of frequently cleaning the reflecting-surface.

The invention will first be described in connection with drawing, and then pointed out in the claim.

In the drawing, A represents a reflector of curved, polygonal, or other shape, which is covered at the front or reflecting surface with a thin layer of isinglass or mica, that is retained by the bent-down edges of the reflector at all the sides. The mica is thereby closely connected to the reflector, and the re-

fecting-surface kept free of dirt or tarnish, the mica being cleaned with greater facility and ease than a metallic surface. The reflector A is applied to the lamp by spring-clamps B at the lower end, which are, together with the part C, secured to the back of the reflector, bent of one piece of wire and attached by the forward-extending arms or prongs B' (shown in Fig. 1) readily to the lamp at the junction of burner and bowl. The spring prongs or clamps admit the moving of the reflector to any point around the lamp, while supporting the same steadily in position thereon. The reflector may be easily taken off and put on, and has, on account of the mica lining, considerable reflecting power.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination of the reflector and the clamps B B' C, adapted to be attached substantially as and for the purpose specified.

MARTIN P. WARNER.  
JABEZ F. WARNER.

Witnesses:

SAMUEL SIMPSON,  
THEODORE CLARK.