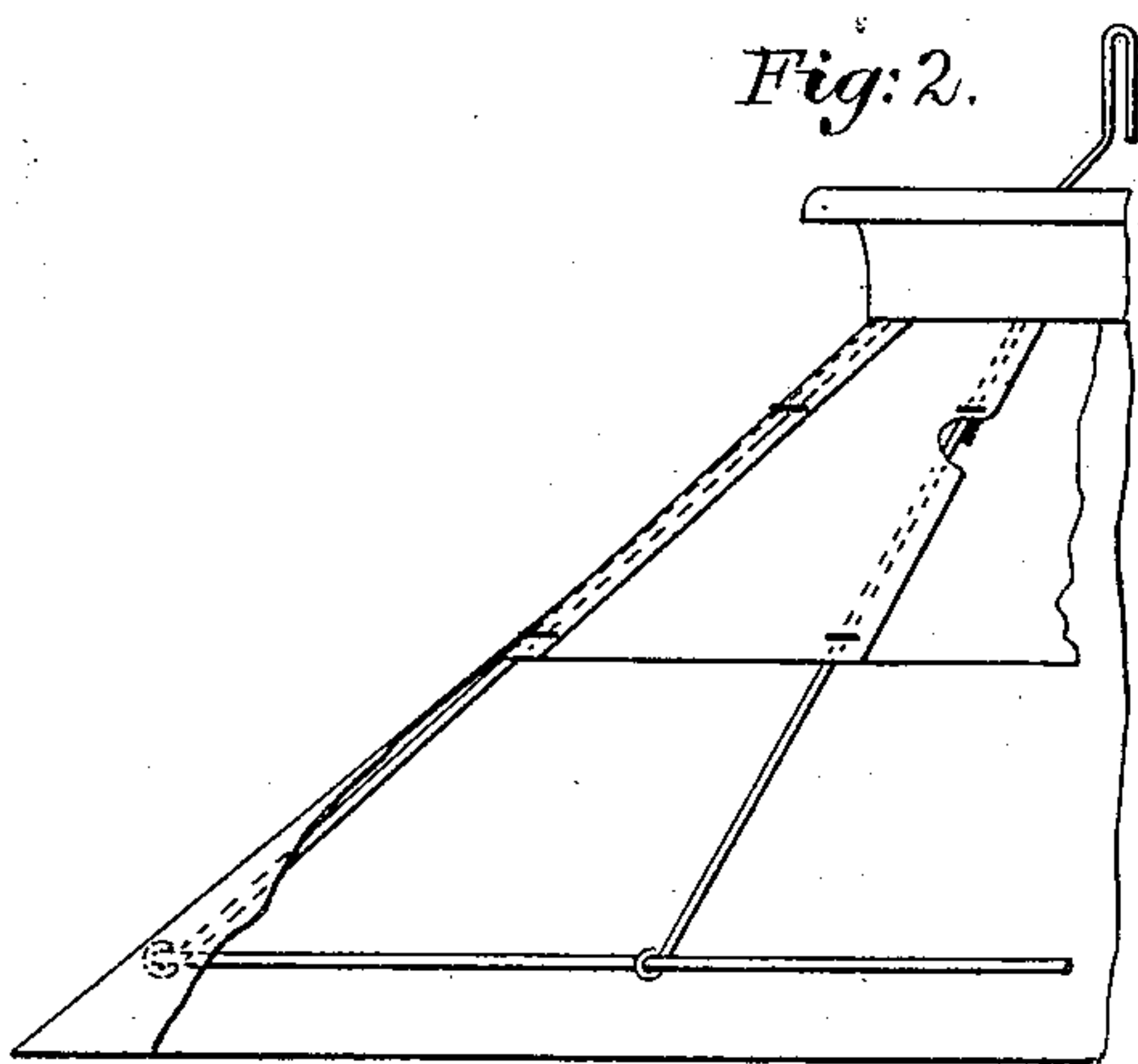
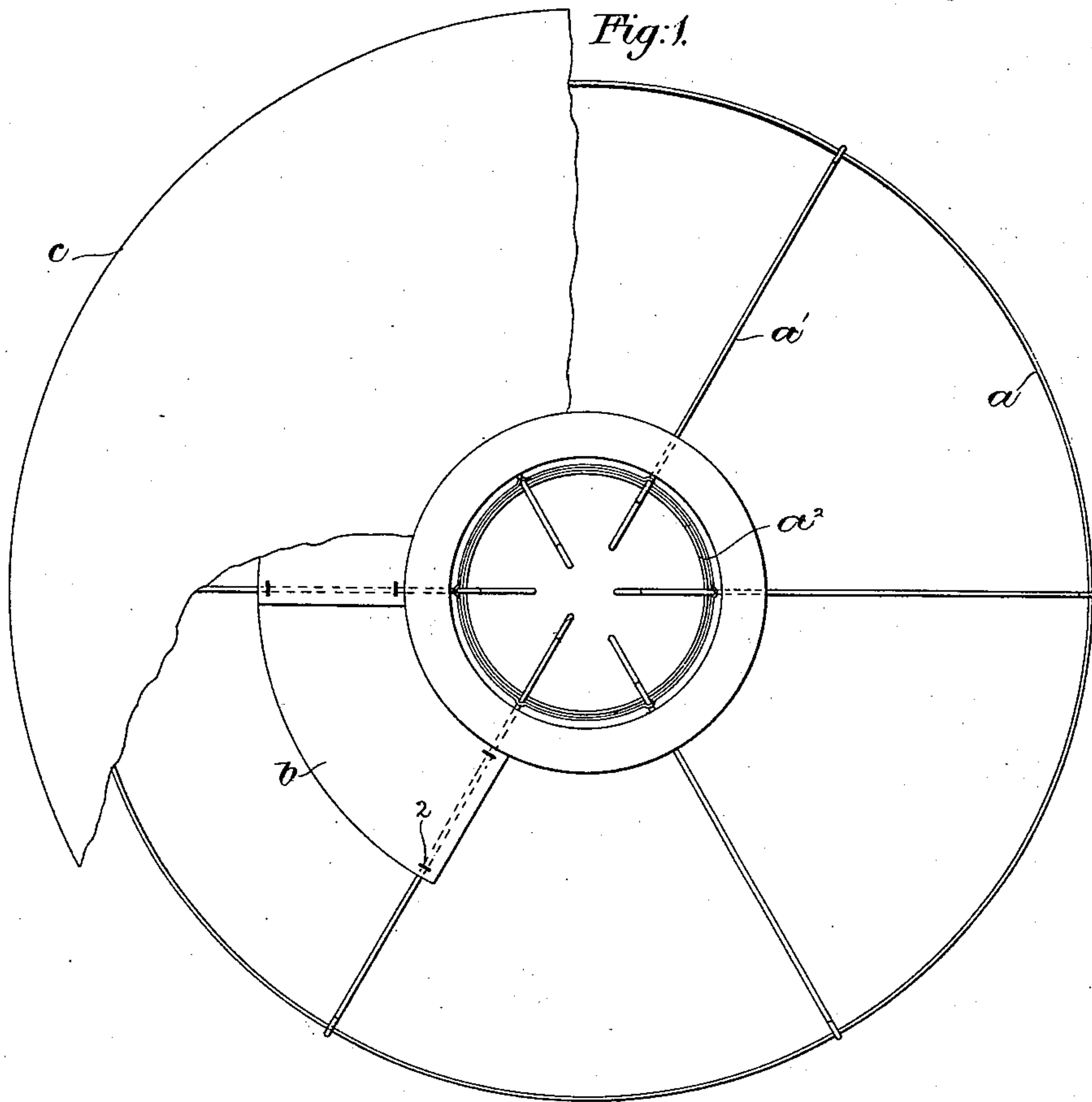


(No Model.)

J. C. HOLLINGS.  
SHADE FOR ILLUMINATING BURNERS.

No. 407,731.

Patented July 23, 1889.



Witnesses.  
Howard F. Eaton.  
Francis L. Emery.

Inventor.  
J. Charles Hollings,  
by Henry Gregory atty.

# UNITED STATES PATENT OFFICE.

JOHN CHARLES HOLLINGS, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO  
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## SHADE FOR ILLUMINATING-BURNERS.

SPECIFICATION forming part of Letters Patent No. 407,731, dated July 23, 1889.

Application filed November 24, 1888. Serial No. 291,778. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN CHARLES HOLLINGS, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Shades for Illuminating-Burners, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

Heretofore in the manufacture of shades for lamps and other illuminating-burners it has been customary to employ a wire frame upon which the shade of textile material—paper or other suitable material—is placed.

It has been found in practice that the shade-covering nearest the chimney surrounding the frame soon becomes charred and burns, thereby destroying the said covering, which in many instances is made of silk or lace or similar expensive material.

To avoid the destruction of the shade-covering, I place beneath the said covering a non-heat-conducting shield, the same being composed of a non-heat-conducting material—such, for instance, as asbestos, mica, &c. The non-heat-conducting material may be made to conform in shape to the frame, but somewhat shorter, it being connected to or supported by a frame, all as I will proceed now to set forth and claim.

Figure 1 shows in plan view a shade embodying my invention, the outer covering being broken away to show the shield, and the shield being also broken away to show the frame; Fig. 2, a side view of a portion of the shade shown in Fig. 1.

The frame, usually composed of the wire ring *a*, radial arms *a'*, and the small ring *a''*, is and may be of any suitable size and shape to be placed upon a lamp of any ordinary construction. On this frame is placed the shield *b*, it being composed of non-heat-con-

ducting material—such, for instance, as asbestos paper, or mica—the shield conforming in shape to the frame, and preferably fitting snugly thereon. The shield *b* is attached to the radial arms *a'* of the frame by loops or staples of thread or metal. The outer covering *c* for the shade, of silk or other textile material, or of paper or other usual or suitable material, is properly shaped and supported by the frame. By this construction the outer covering of the shade will be protected, so that silk or other expensive material may be employed with safety.

Before my invention a metallic shield was interposed between a lamp-shade and the flame to prevent combustion or defacement of the shade; but in order to make such shield in any wise effective for the purpose intended it was found necessary to provide a considerable space between the shield and the shade for the passage of air-currents to convey away the heat. Such shield, therefore, was not, and of necessity could not be, a non-conductor of heat, and it is to this class of materials only—namely, non-conductors of heat—that my invention is restricted.

I claim—

The shade for illuminating-burners, composed of the wire frame, substantially as shown and described, the shield *b*, of material that is a non-conductor of heat, fitted to said frame and secured thereon by loops 2, of thread or wire, and the outer covering resting upon and supported by the frame and shield, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

J. CHARLES HOLLINGS.

Witnesses:

BERNICE J. NOYES,  
HOWARD F. EATON.