E. R. HOFF.

HEAT SHIELD FOR INCANDESCENT ELECTRIC LAMPS.

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1,145,837.

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Fig. 1.

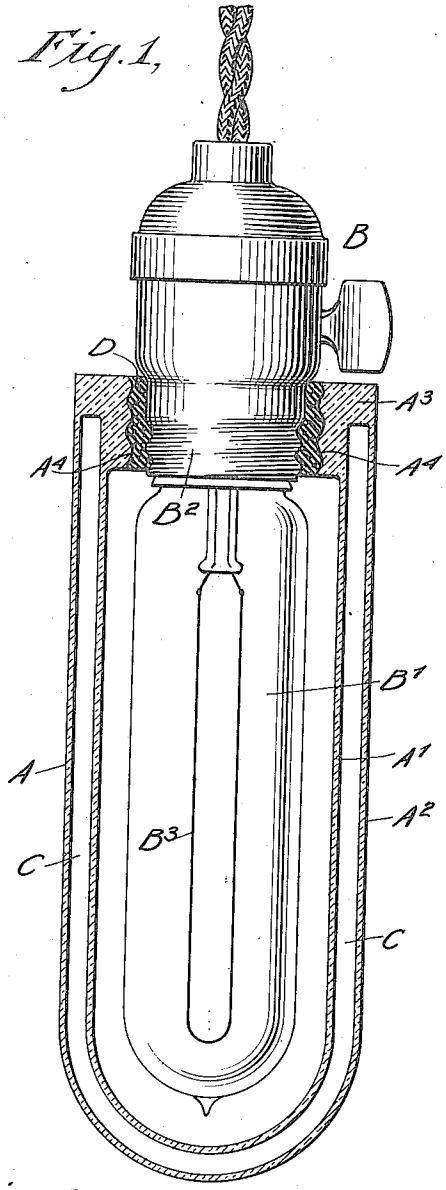
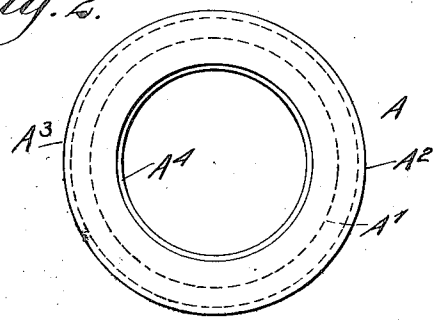


Fig. 2.



WITNESSES

Edw. Thorpe

Percy Foster

INVENTOR

Edward R. Hoff

BY Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWARD REDMOND HOFF, OF NEW YORK, N. Y.

HEAT-SHIELD FOR INCANDESCENT ELECTRIC LAMPS.

1,145,837. Specification of Letters Patent. Patented July 6, 1915.

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To all whom it may concern:

Be it known that I, EDWARD R. HOFF, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Heat-Shield for Incandescent Electric Lamps, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved heat shield for incandescent electric lamps especially such as are used in the immediate neighborhood of persons, and arranged to allow the rays of light emanating from the lamp to illuminate readily the immediate surroundings and to shield persons in the immediate neighborhood from heat generated incident to the incandescence of the filament.

In order to accomplish the desired result use is made of a bulb-shaped receptacle made of glass or other diaphanous material and adapted to inclose the lamp bulb, the said receptacle having walls spaced apart to form a vacuum chamber.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a sectional side elevation of the heat shield as applied to an incandescent electric lamp shown in elevation; and Fig. 2 is a plan view of the heat shield.

The heat shield is in the shape of a bulb-shaped receptacle A made of glass or other diaphanous material and adapted to inclose the bulb B′ and a portion of the socket B^2 of an incandescent electric lamp B of the usual construction. The receptacle A is formed of inner and outer glass walls A′, A^2 connected with each other at A^3 at the mouth of the receptacle to form a space from which the air has been exhausted to provide a vacuum chamber C between the said walls. It will be noticed that by providing the vacuum chamber C the heat generated incident to the incandescence of the filament B^3 of the electric lamp B is prevented from passing through the shield owing to the vacuum chamber C and hence this heat does not affect persons in the immediate neighborhood of the electric lamp. This heat shield is very serviceable for use on electric lamps employed by dentists, for instance, to illuminate the interior of the mouth and thus bring the electric lamp close to the patient's face. The heat shield is also very serviceable on electric lamps used on desks and the like to shield the persons seated at such desks from the heat incident to the burning of the electric lamp, as above explained.

In order to conveniently attach the heat shield to the electric lamp various means may be employed, for instance, as shown in Fig. 1, the mouth A^4 of the receptacle A is internally thickened and provided with an internal screw thread adapted to screw on a ring D of asbestos or other non-heat conducting material. The ring D is screwed or otherwise attached to the threaded or other portion of the socket B^2.

In using this heat shield, the ring D is first attached to the socket B^2 and then the heat shield receptacle A is slipped over the bulb B′ and screwed onto the ring E. The bulb B′ is spaced from the inner wall A′ of the receptacle A to form an air space between the bulb B and the receptacle A.

The heat shield as shown is readily applicable to incandescent electric lamps as now used, but it is evident that the heat shield may be constructed as a permanent part of the bulb B′ of the electric lamp in case it is desired to do so.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A heat shield for incandescent electric lamps, comprising a bulb-shaped receptacle having spaced parallel glass walls with a vacuum chamber between them, the said receptacle having an open mouth for the passage of the bulb of an electric lamp into the receptacle, the said walls being integrally connected with each other at the mouth of the receptacle, and a ring attached to the mouth of the receptacle and adapted to be engaged with the socket of the electric lamp.

2. A heat shield for incandescent electric lamps, comprising a bulb-shaped receptacle having spaced parallel glass walls with a vacuum chamber between them, the said receptacle having an open mouth for the passage of the bulb of an electric lamp into the receptacle, the said walls being integrally connected with each other at the mouth of the receptacle and the inner surface of the mouth being provided with a screw thread, and a ring of a non-heat con-

ducting material and having outer and inner screw threads, of which the outer screw thread screws onto the said screw thread and the said inner screw thread of the ring is adapted to screw onto a threaded portion of the lamp socket.

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

EDWARD REDMOND HOFF.

Witnesses:
EMIL BIELE,
FLORENCE A. MEYER.