(No Model.)

H. J. GUTMAN.

INCANDESCENT ELECTRIC LAMP.

No. 467,576. Patented Jan. 26, 1892.

Fig. 1.

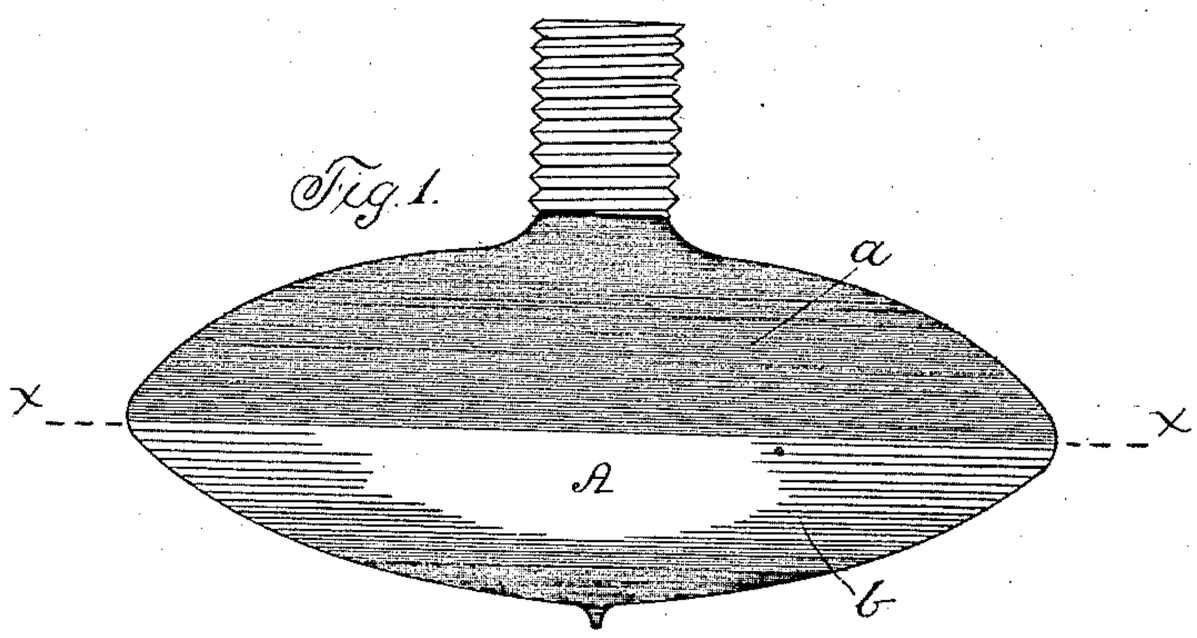


Fig. 2.

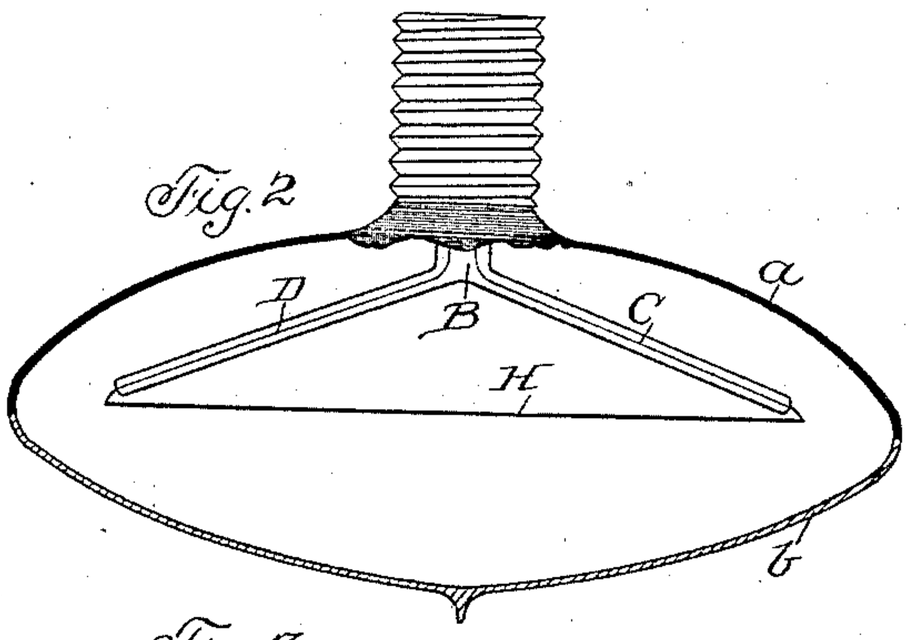
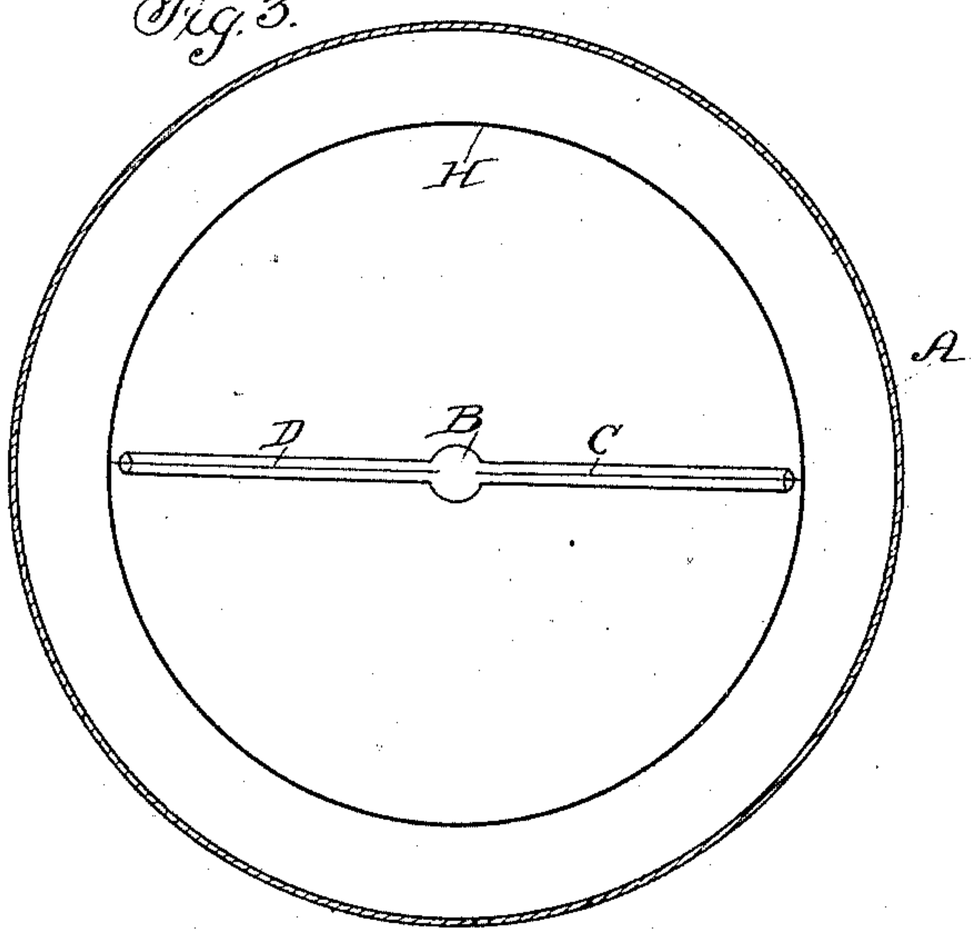


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY J. GUTMAN, OF DES MOINES, IOWA.

INCANDESCENT ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 467,576, dated January 26, 1892.

Application filed April 10, 1891. Serial No. 388,433. (No model.)

To all whom it may concern:

Be it known that I, HARRY J. GUTMAN, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Improvement in Incandescent Electric Lamps, of which the following is a specification.

The object of my invention is to provide means by which in an incandescent electric lamp the maximum area of shading and reflecting surface is attained, which shading and reflecting surface is a part of the globe of the lamp, thus dispensing with the necessity of an independent or auxiliary shading and reflecting device, and which also shall radiate the light from the filament more diffusively and with greater effectiveness, the incandescent filament itself being located in such a position and of such a form as to be entirely shaded, whereby the extreme brilliancy of the lamp is modified or entirely cut off.

My invention consists in the combination, with a globe which is oblate-spheroidal or turnip-shaped in form and having a translucent upper shading or reflecting portion, of a circular filament extended in a horizontal plane concentrically within said globe at a point above the line of demarkation between the transparent and trauslucent portions thereof.

My invention consists, further, in certain details of construction hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a side view of the complete device. Fig. 2 is a vertical central sectional view of the same. Fig. 3 is a cross-sectional view on the line X X of Fig. 1.

A represents the inclosing globe, and B the inner glass stem through which the leading-in wires C and D pass, these leading-in wires being attached in the usual manner to a circular filament about to be described. The upper portion *a* of the globe A is of translucent glass and the lower portion *b* thereof is of transparent glass. If desired, this upper portion *a* of the globe may be made of opaque glass, thus entirely cutting off the luminous rays of light, instead of simply modifying or subduing those rays, as is the case when translucent glass is used.

H designates a filament of substantially circular form, which is inserted within the globe and manipulated into the desired shape in the usual manner. This filament is located above the line of demarkation between the transparent and translucent portions of the globe, and is arranged concentrically therewith in a horizontal plane. By virtue of the oblate-spheroidal shape of the globe a filament of circular form may be disposed within said globe in a horizontal plane, the filament thus inclosing and illuminating a greater area of space and also permitting the disposition of the entire filament within that portion of the globe which is opaque or translucent. The intensity of the luminous rays are thus subdued or cut off by the upper section of the globe and directed and diffused downwardly through the lower or transparent portion thereof. It will be observed that the filament describes a complete circle, and is therefore endless, and the leading-in wires extending from the head or base downwardly and outwardly are connected to each side of the circular filament. It is further apparent that if the portions of the filament on each side of the leading-in wires are of equal resistance, the current at the point where the positive lead is attached to the filament will equally divide and traverse said filament in opposite directions, so that the whole current does not traverse the filament.

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

1. As an improved article of manufacture, an incandescent electric lamp comprising an inclosing globe, a base for the lamp, an endless circular filament disposed within said globe in one horizontal plane, together with leading-in wires extending downwardly and outwardly from the base to either side of the said filament, their lower ends being connected to said filament at diametrically-opposite points.

2. As an improved article of manufacture, an incandescent lamp comprising an oblate-spheroidal or turnip-shaped globe, the upper and lower portions of which are opaque or translucent and transparent, respectively, an endless circular filament disposed within said globe in one horizontal plane, and leading-in wires extending from the top or point of entrance to the globe to each side thereof, the lower ends of said leading-in wires being connected to each side of the circular endless filament.

HARRY J. GUTMAN.

Witnesses:
S. C. SWEET,
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