

G. A. SEESSLE.
 TRANSPARENT HOOD FOR ELECTRIC LAMPS.
 APPLICATION FILED SEPT. 18, 1912.

1,042,979.

Patented Oct. 29, 1912.

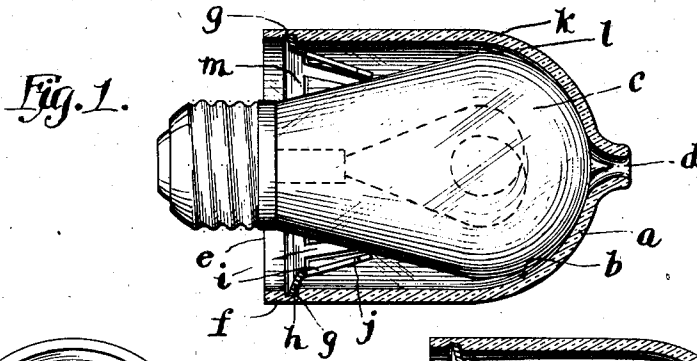


Fig. 3.

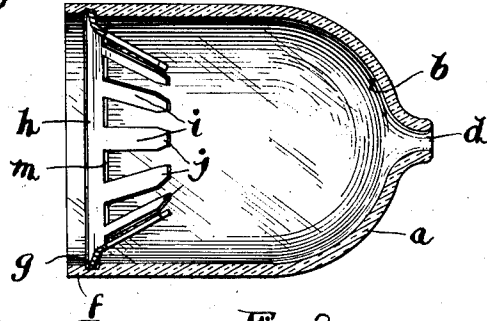
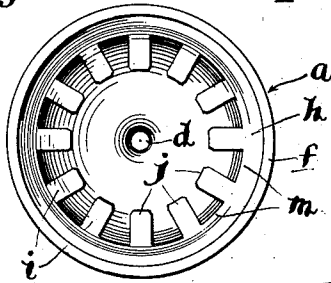


Fig. 2.

Fig. 4.

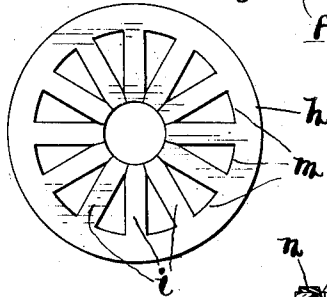


Fig. 6.

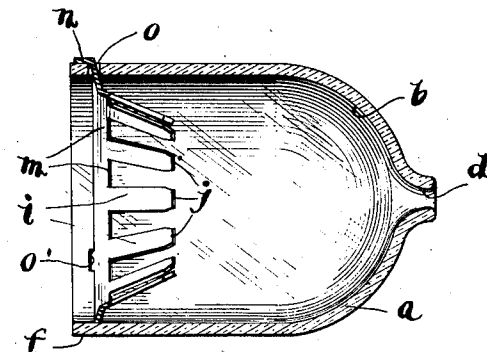
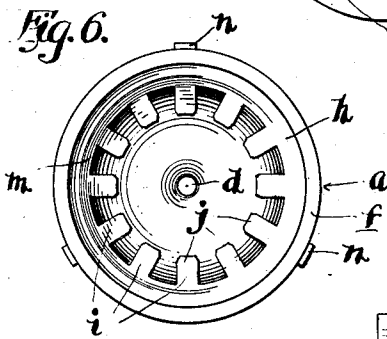
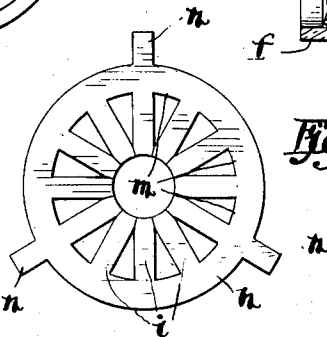


Fig. 5.

Fig. 7.



Witnesses:

F. H. Poole
 Eugene C. Wauve

Inventor:

Gustav A. Seessle.

by Poole & Comer

Attys.

UNITED STATES PATENT OFFICE.

GUSTAV A. SEESSLE, OF WHEATON, ILLINOIS, ASSIGNOR TO REYNOLDS ELECTRIC
FLASHER MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION
OF ILLINOIS.

TRANSPARENT HOOD FOR ELECTRIC LAMPS.

1,042,979.

Specification of Letters Patent.

Patented Oct. 29, 1912.

Application filed September 16, 1912. Serial No. 720,462.

To all whom it may concern:

Be it known that I, GUSTAV A. SEESSLE, a citizen of Germany, and a resident of Wheaton, in the county of Dupage and State of Illinois, have invented certain new and useful Improvements in Transparent Hoods for Electric Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of transparent hoods for electric lamps which are adapted to be removably connected with and form a transparent colored hood for incandescent electric lamps.

The principal object of the invention is to provide a simple, economical and efficient removable hood for electric lamps.

A further object of the invention is to provide a transparent hood for electric lamps having a concave inner end surface portion and supporting spring mechanism mounted inside of the peripheral rim of the hood, and comprising a plurality of spring fingers extending inward and toward the concave end portion of the hood, and adapted to yieldingly engage a bulb, for holding the bulb and hood in operative position with relation to each other, all so constructed and arranged that the bulb is out of engagement with both the hood and spring mechanism at its point of greatest diameter and free to expand transversely within the hood, and is yieldingly held between the spring fingers and the end of the bulb in such a manner as to permit freedom of expansion of the bulb longitudinally or endwise.

A further object of the invention is to provide a transparent hood for electric lamps, having a concave end portion adapted to engage the convex end portion of a bulb, and provided with an opening in said concave end portion for admitting air to cool the interior of the hood, and having supporting spring mechanism extending inside of the peripheral rim and in yielding engagement with the bulb, and adapted to hold the bulb yieldingly between the spring mechanism and the concave end portion of the hood and in concentric relation to the hood, so as to permit the free expansion of the bulb transversely and longitudinally.

Other and further objects of the invention will appear from an examination of the accompanying drawings and from the following description and claims.

The invention consists in the features, combinations and details of construction herein described and claimed.

In the accompanying drawings, Figure 1 is a side view of an electric lamp or incandescent bulb provided with a transparent hood and supporting spring device constructed in accordance with my improvements, and showing the hood and spring mechanism in longitudinal section; Fig. 2, a longitudinal sectional view of the hood and spring mechanism, shown in Fig. 1, with the bulb or electric lamp removed; Fig. 3, an end view of the hood and spring mechanism, shown in Fig. 2; Fig. 4, a detail plan view of a blank of which the spring mechanism, shown in Figs. 1, 2 and 3, is formed, showing the same as it would appear before having been bent or formed as shown in said Figs. 1 to 3 inclusive; Fig. 5, a view in longitudinal section of a transparent hood for electric lamps and spring mechanism for supporting the same upon an electric lamp or bulb, showing my improved spring mechanism provided with lateral projections extending through perforations in the hood, and adapted to form a yielding connection between the hood and lamp bulb; Fig. 6, an end view of the device shown in Fig. 5; and Fig. 7, a plan view in detail of a blank from which the spring mechanism shown in Figs. 5 and 6 is formed, showing the same as it would appear before being pressed into the form shown in said Figs. 5 and 6.

In constructing a transparent hood for electric lamps provided with supporting spring mechanism, constructed in accordance with my improvements, I provide a hood *a* formed preferably of glass and of a different color from the lamp or bulb to be encircled thereby. One end of the hood has a concave inner surface portion *b* adapted to engage the convex end surface portion of an electric lamp or bulb *c*, and is provided with a relatively small opening *d* in said end portion of the hood, adapted to admit air for cooling the bulb and the interior of the hood. The hood is provided at its opposite end with a relatively large opening *e* adapted to admit the lamp or bulb, and the peripheral rim portion *f*, at the end having the rela-

tively large opening, is provided with supporting spring mechanism formed, by preference, of a single piece of spring metal such as sheet brass, or similar resilient material, cut or stamped and bent to form an annular resilient body portion, ring or flange provided with a series of resilient spring fingers i having their outer upper ends connected and preferably integral with the ring or annular body portion h of the spring device, and their inner ends j extending inwardly and downward or toward the concave opposite inner end portion or lower end of the hood and in yielding engagement with the bulb—the point of greatest transverse diameter k of the bulb being between the spring device and the concave end of the hood, and being of less diameter than the peripheral portion of the hood by which said portion of the bulb is encircled. A space l is thus provided between the bulb and the portion of the hood surrounding the same at the point where the bulb is of greatest transverse diameter, and the end portion b of the hood engages the convex end surface portion of the bulb, in such a manner as to permit the bulb to freely expand both transversely and longitudinally or endwise of the bulb when the temperature is raised, and be held yieldingly in proper position concentric with the hood and in yielding engagement with the inner surface of the hood under all conditions of temperature.

The spring fingers i are all connected in rigid relation to each other at their upper, outer ends, by means of the annular body portion or flange h of the supporting spring device, which body portion encircles the neck or relatively small end portion of the bulb on the inside of the open end portion of the hood. The upper, outer ends of the spring fingers and the main body portion or flange h are entirely out of engagement with the bulb. The spring fingers are, by preference, entirely out of engagement with the hood throughout their entire length, and both at their upper or outer and lower or inner ends, and are connected with each other at their upper or outer ends or bases with sufficient rigidity, but so as to afford the desired degree of resilience, by means of the inner portion m of the ring h which extends inward and is preferably turned down so as to extend at an angle with respect to the outer flange or peripheral portion of the ring h and form the base portions of the spring fingers or provide a connection between said fingers (see Figs. 1 and 2).

The annular body portion or peripheral flange h of the supporting spring device is adapted to be pressed into an inner annular groove g in the inner periphery of the hood, which may be provided, for the purpose of admitting and supporting the same, at or

near the peripheral rim or large open end of the hood, as illustrated in Figs. 1 and 2, thus affording a spring support for the hood and a yielding connection between the bulb and hood, adapted to enable the hood to be removed from the bulb with facility and to hold the supporting spring device securely, permanently and non-detachably in engagement with the hood in which it is thus mounted.

In order to provide means for even more securely connecting the supporting spring device with the hood, the main annular body portion or ring portion h of the spring device may be provided with laterally projecting portions or tongues n which are, by preference, integral with the annular main body portion or flange h , and arranged at suitable intervals around the periphery of the same and inserted into or, by preference, through corresponding peripheral openings o in or through the hood near its peripheral rim or large open end. These lugs are, by preference, bent upward and in the direction of the edge or rim of the hood (see Fig. 5) in such position that their inner surfaces engage the adjacent surface of the hood, so that outward pressure upon the inner ends or lower ends of the spring fingers will press the outer lugs or fingers yieldingly toward or more tightly against the hood, and provide a sufficiently rigid but yielding support and connection between the bulb and hood.

I claim:

1. The combination with an electric lamp bulb, of a hood encircling the periphery and one end of the bulb, and a supporting spring device comprising an annular body portion secured to the inner side of the hood near the peripheral rim of the latter and having integral spring fingers connected at their outer ends with said annular body portion and extending inward therefrom toward the axial center of the hood and toward the inclosed end of the bulb and in yielding engagement with the periphery of the bulb, for yieldingly supporting the hood.

2. The combination with an electric lamp bulb, of a hood encircling the periphery and one end of the bulb and provided with an inner annular groove in its inner surface, and a supporting spring device comprising an annular main body portion extending into said groove, and provided with a series of integral spring fingers connected at their outer ends with said annular body portion, and extending inward therefrom toward the axial center of the hood and toward the inclosed end of the bulb, and having their inner ends in yielding engagement with the periphery of the bulb.

3. The combination with an electric lamp bulb, of a hood encircling the periphery of the bulb and having an end portion encircling the tip end of the bulb and provided

with an opening in said end for admitting air, and supporting spring mechanism comprising an annular body portion secured to the hood and out of engagement with and encircling the bulb, and having a series of spring fingers, each connected at its outer end with said annular body portion and extending inward toward the axial center of the hood and toward the inclosed end of the bulb, the inner ends of said spring fingers being in yielding engagement with the periphery of the bulb and adapted to yieldingly support the hood upon the bulb.

4. The combination with an electric lamp bulb, of a hood encircling the periphery and one end of the bulb and having a concave inner surface portion in engagement with an adjacent convex outer surface portion of the bulb, and a supporting spring device comprising an annular main body portion secured to the hood and encircling and out of engagement with the bulb, and comprising a series of spring fingers integral with said annular body portion and extending inward therefrom toward the axial center of the hood and toward the inclosed end of the bulb and in yielding engagement with the bulb.

5. The combination with an electric lamp bulb, of a hood encircling the periphery and one end of the bulb and having a concave inner surface portion in engagement with an adjacent convex outer surface portion of the bulb, and provided with a space between the hood and the portion of the bulb having the largest diameter, a supporting spring device comprising an annular main body portion secured to the hood and encircling and out of engagement with the bulb, and a series of spring fingers integral with said annular body portion and extending inward therefrom toward the axial center of the hood and toward the inclosed end of the bulb and in yielding engagement with the bulb, whereby the hood is held yieldingly in engagement with the convex end surface portion of the bulb, and the bulb is enabled to freely expand and contract within the hood.

In testimony, that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 5th day of September A. D. 1912.

GUSTAV A. SEESSLE.

Witnesses:

O. D. ZIEGLER,

E. J. WHITMAN.