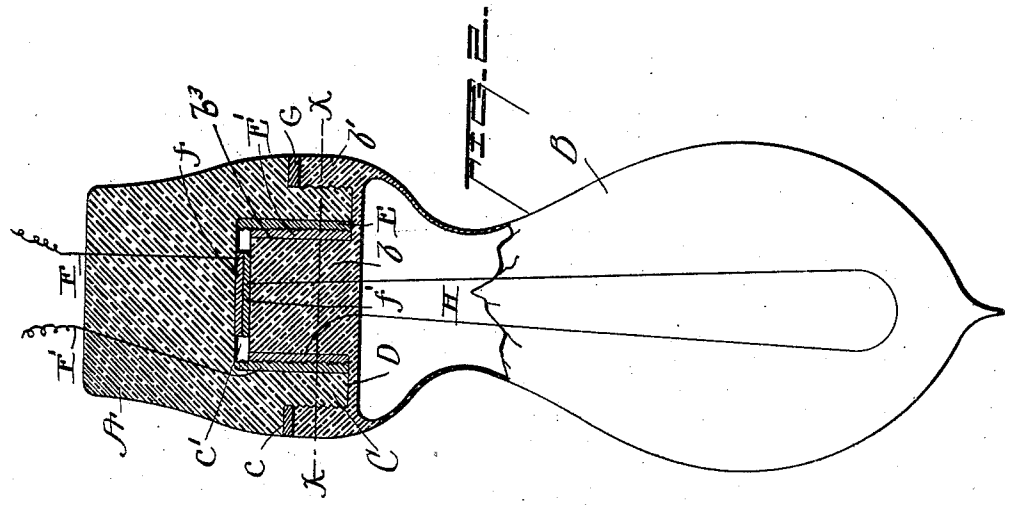
No. 695,844. Patented Mar. 18, 1902.

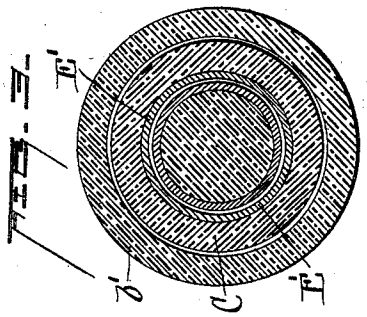
L. THAYER.

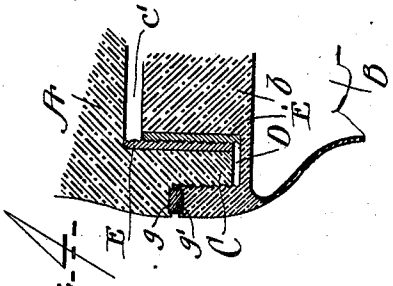
INCANDESCENT LAMP.

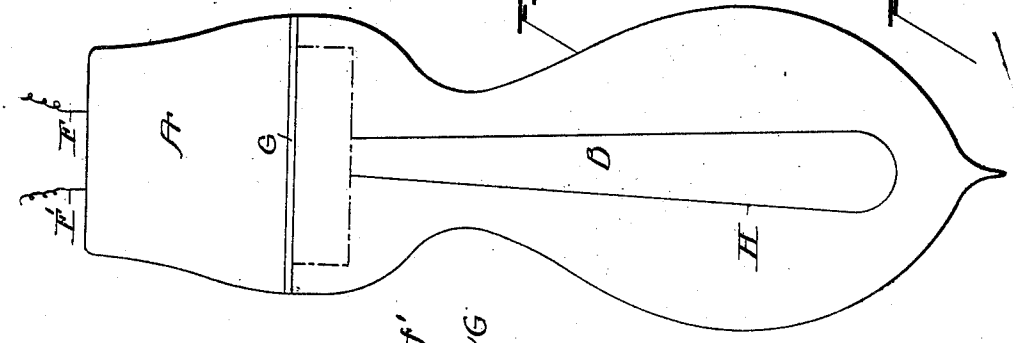
(Application filed July 17, 1900.)

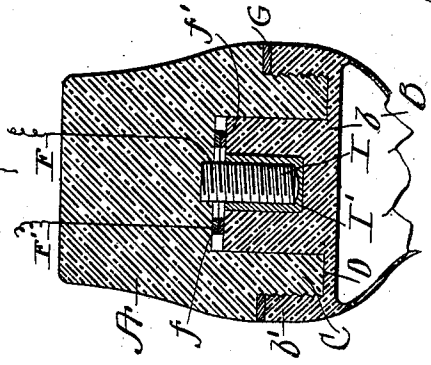
(No Model.)











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UNITED STATES PATENT OFFICE.

LESTER THAYER, OF PEORIA, ILLINOIS.

INCANDESCENT LAMP.

SPECIFICATION forming part of Letters Patent No. 695,844, dated March 18, 1902.

Application filed July 17, 1900. Serial No. 23,895. (No model.)

To all whom it may concern:

Be it known that I, LESTER THAYER, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Incandescent Lamps; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in incandescent lamps by means of which a lamp of the class described is provided having certain novel features which are well adapted for the purpose described.

More particularly, my invention has for its object the provision of an incandescent lamp which shall be water as well as moisture proof, adapting the same to be successfully used in places where it has heretofore been found impracticable to do so, and, furthermore, to enable electric signs to be made in greater varieties owing to the construction of the lamp completely protecting the contact-points within the socket and bulb and preventing a short circuit by reason of moisture and water being admitted to the contacts.

My invention consists, essentially, of a socket and bulb, each being provided with matching screw-threaded portions, of an annular depending flange from the socket engaging and being retained in an annular groove in the bulb, of a suitable gasket or flexible ring interposed between the matching faces of the socket and bulb and encircling and being ordinarily retained in its relative position by the depending flange as to have an outer matching surface with that of the socket and bulb, presenting a continuous and smooth external circumferential surface of the socket and bulb at the matching faces of the same, and of the details and modifications hereinafter more particularly pointed out in the drawings and claimed in the appended claims.

That my invention may be more fully understood reference is had to the accompanying drawings, forming a part of this specification.

Figure 1 is an elevation of my improved lamp. Fig. 2 is a vertical section of the same. Fig. 3 is a cross-section on the line X X of Fig. 2. Figs. 4 and 5 are modifications of the means for attaching the gasket and contact means between the socket and bulb.

In the drawings, A refers generally to the socket, and B to the bulb, which may have the general contour shown or modified in style without departing from the essential features hereinafter described and claimed.

C is an annular depending flange or ring from the socket, the provision of which provides the ledge *c* and the centrally-disposed cavity or pocket *c'*.

The bulb B is provided with the centrally-disposed extension or lug *b*, substantially circular in appearance, and the flange or ring *b'*, encircling the globe and forming a part of the outer external wall of the bulb, the arrangement of the ring or flange *b'* and the lug *b* forming the annular groove or pocket D between their matching faces.

The socket and bulb are purposed to be made of suitable non-conducting material—such as glass, porcelain, or their equivalents—and by reason of such construction the metal ring E is provided to encircle the depending flange or ring C and to engage its inner circumferential surface, and E' is a similar ring encircling the centrally-disposed lug extension *b* of the bulb, and the matching faces of each are suitably screw-threaded as to have a permanent engagement when brought together.

The outer circumferential surface of the flange or ring C is suitably screw-threaded and is purposed to engage a screw-threaded portion of the ring *b'* of the bulb.

G is a gasket or flexible ring of suitable material purposed to be slipped over the depending flange of the socket and be seated on the ledge *c*, purposed when the socket is screwed into the bulb to cause the lower face of the gasket to engage the outer matching face of the ring *b'*, which provides a suitable packing between the matching faces of the socket and bulb, preventing water or moisture from damaging in any way the contact-points and preventing short-circuit, the arrangement of the gasket and general contour of the socket and bulb preventing a continuous matching external surface of the socket and bulb throughout.

Interposed between the outer face b^3 of the lug extension b and the stock of the socket is provided matching and engaging rings $f f'$ of suitable conducting material.

F F′ are leading-in wires representing the positive and negative poles, the wire F contacting with the plate f and the wire F′ contacting with the screw-threaded ring E′, which is of suitable conducting material.

H refers to the filament, one end of which contacts with the ring f', which is substantially similar to the ring f and contacts with the same, and the opposite end of the filament contacts with the ring E, which contacts with the ring E′, making a complete circuit.

In Fig. 4 is shown a modified means of carrying the gasket or flexible ring G, which consists in the provision of the grooves $g g'$, arranged in the matching faces of the socket and bulb and near the outer edges, in which is seated the gasket, and held firmly therein. By this means of carrying the gasket it insures a complete packing and prevents the same from being dislodged.

In Fig. 5 I do away entirely with the manner of making my connections between the filament and leading-in wires, consisting in the provision of a depending screw-threaded lug or bolt I, engaging with a socket I′, both of which are of suitable conducting material, thus doing away with the screw-threaded ring portions E and E′, as described.

To insure a complete sealing of the matching edges of the socket and bulb, if at any time it is desired to submerge the lamp, so that the same is submitted to a continued soaking, as would be the case by such use, the edges may be sealed by a rubber band carried around the external matching edges as to overlap the same, or the same may be sealed by suitable water and moisture proof compound without in any way departing from the invention herein set forth.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a weatherproof incandescent lamp, the combination of a socket and bulb provided with matching flanges and grooves with screw connections, an annular ring or gasket interposed between the matching or engaging faces of the socket and bulb, the arrangement of the gasket and general contour of the socket and bulb presenting a continuous matching external surface of the socket and bulb, substantially in the manner herein shown and described.

2. In a weatherproof socket and bulb, a socket provided with an annular depending flange engaging the matching walls of an annular groove in the bulb, of a flexible gasket or ring interposed between the matching faces of the socket and bulb, the same being carried around the depending flange or ring of the socket, substantially in the manner described.

3. The herein-described weatherproof socket and bulb, consisting of the socket A, and the bulb B, a depending flange or ring from the socket carried in an annular groove in the bulb, of a centrally-disposed lug or extension from the bulb, and an annular flange forming an extension of the outer wall thereof, screw connections between the socket and bulb and suitable contacts, for the leading-in wires and filament, of suitable packing interposed between the socket and bulb and adapted to serve the purpose herein described and presenting a continuous matching external circumference substantially of the same contour, as set forth.

4. An incandescent bulb provided with a base of an annular flange forming a part of the external wall of the bulb, a centrally-disposed stud integral with the body of the base, the arrangement of flange and stud forming an annular groove, substantially for the purpose described.

5. An incandescent lamp comprising a socket and bulb, the bulb with a base of an annular flange with an interior thread, a stud centrally disposed in the base of relatively small diameter and externally threaded, the socket having a flange externally and internally threaded to match the threads of the flange and stud of the base of the bulb, substantially for the purpose described.

In witness whereof I affix my signature in presence of two witnesses.

LESTER THAYER.

Witnesses:
R. N. McCORMICK,
CHAS. W. LA PORTE.