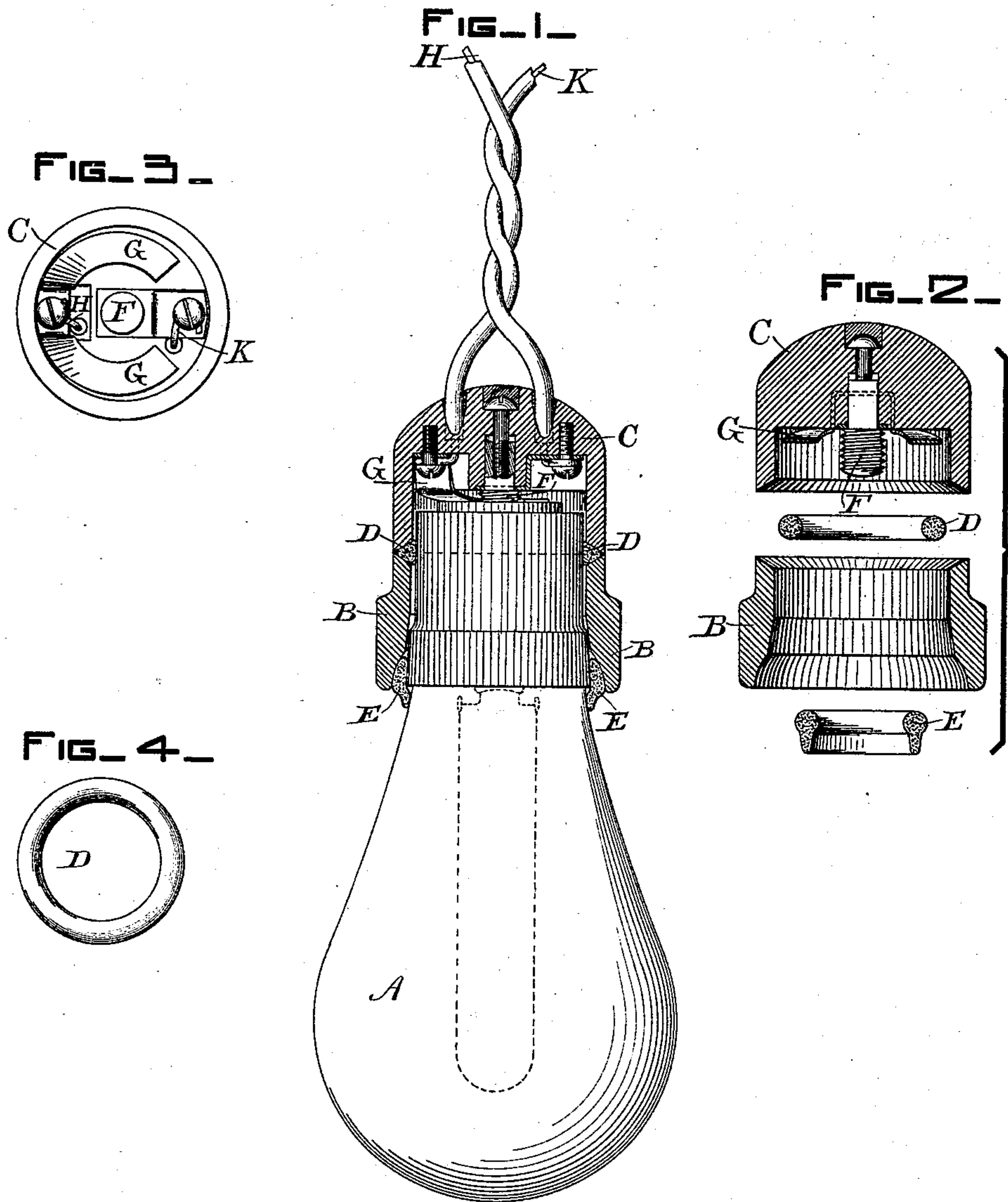


(No Model.)

G. R. LEAN & C. B. BURLEIGH.  
CASING FOR BASES OF INCANDESCENT LAMPS.

No. 487,846.

Patented Dec. 13, 1892.



WITNESSES

*A. D. Orme*  
*H. J. Livermore*

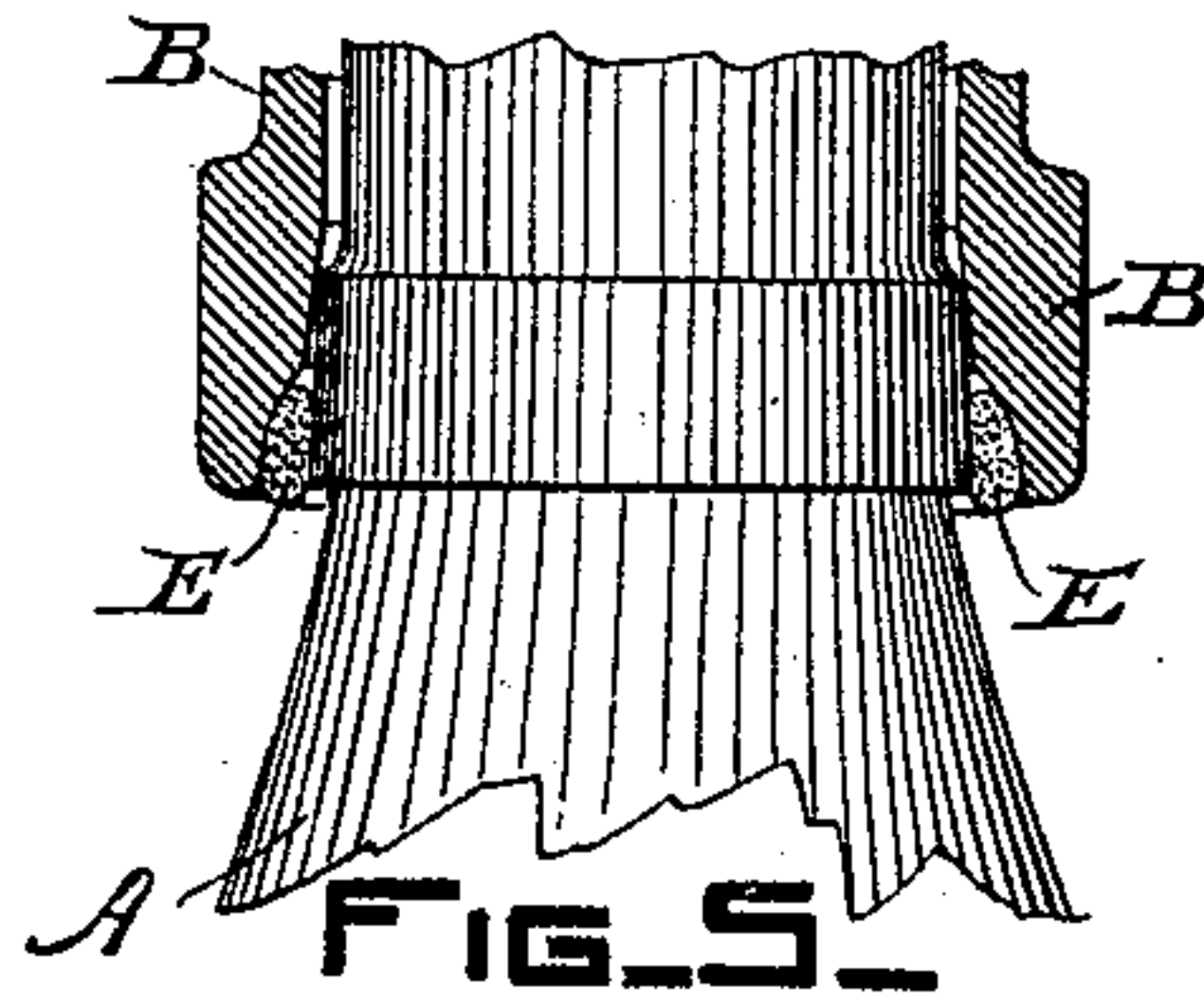


FIG. 5.

INVENTORS

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# UNITED STATES PATENT OFFICE.

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## CASING FOR BASES OF INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 487,846, dated December 13, 1892.

Application filed November 27, 1891. Serial No. 413,183. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE R. LEAN, residing at Boston, and CHARLES B. BURLEIGH, residing at Chelsea, in the county of Suffolk, State of Massachusetts, citizens of the United States, have invented certain new and useful Improvements in Casings for Bases of Incandescent Lamps, of which the following is a specification.

Our invention consists in casings for the bases of incandescent lamps, which are made cup-shaped and provided with means for attachment to the base and also with contact-terminals corresponding to the lamp-terminals and connected with wires passing through the walls from the outside. The casing is preferably made in two parts, one part being ring-shaped and adapted to be slipped over the base and the other part being cup-shaped and adapted to inclose the end of the base and to be screwed into the ordinary central terminal of the lamp.

In order that this casing may be completely waterproof and adequately protect the metal of the base from water, acids, gases, and other deleterious substances, we provide a packing, preferably made in the form of a rubber ring, which is adapted to intervene between the end of the casing and the lamp, so as to effectually exclude moisture. We also provide a similar packing between the two parts of the casing, so that the joint may also be tight. The ring-shaped part of the casing has its edges shaped with reference to holding and compressing the packing. The casing is made in two parts, as by this means the ring-shaped part can be slipped over the base and pressed down in such a way as to compress the rubber packing by means of a bevel on its edge, and the intermediate packing can then be put in position and held in a bevel on the opposite end of the line, and lastly the cup-shaped part of the casing can be screwed into position, and thereby both compress the packing with out rubbing it while being turned and also secure the ring-shaped part in place. We also provide a protecting-insulator for the wires leading into the end of the casing, and where they pass through

the casing they are surrounded by a cement 50 which makes the joint completely water-tight.

Referring to the accompanying drawings, Figure 1 is a section of the casing constructed according to one form of our invention, the lamp being shown in elevation. Fig. 2 is a 55 section of the two halves of the casing. Fig. 3 is a plan of the contact-terminals in the base of the socket. Fig. 4 is an elevation of the packing-ring, and Fig. 5 a detail showing a modified form of packing. 60

Referring to the drawings, A is an incandescent lamp the socket or base of which it is desired to protect. For this purpose a casing of hard rubber or other suitable material is provided, made of the two parts B and C, 65 which as a whole may be called "cup-shaped," although the same term is hereinafter applied to one of its constituent parts. The part B is ring-shaped and adapted to be slipped over the socket and at each edge it is shaped 70 with a bevel adapted to compress and secure in position the packing hereinafter referred to. The part C is cup-shaped, adapted to inclose the end of the socket, and provided with a screw F, adapted to enter the central ter- 75 minal of the lamp. The bottom or base of the part C is provided with two contact-terminals corresponding to the terminals on the base of the lamp. One of these terminals is formed by the screw F, above referred to, while the 80 other consists of a concentric spring G, adapted to engage with the ordinary ring-terminal on the base of the lamp.

H and K are two well insulated and protected wires passed through the end of the 85 part C and attached, respectively, to the two terminals therein. Where these wires pass through the wall of the casing the joint is made tight by suitable cement, so that the casing is substantially proof against water, 90 acids, gases, or other deleterious substances.

E is a packing made, preferably, of a rubber ring, which is first slipped over base of the lamp and is then compressed and held in place by means of a bevel on the upper end of 95 the ring-shaped part B. This packing E may be of the form shown in Fig. 2, or it may be simply a rubber ring, like packing D, hereinafter



referred to, which when compressed takes the form shown in Fig. 5. After the part B is in position a second packing D is slipped over the end of the base and rests in a bevel in the upper end somewhat similar to the bevel which compresses packing E. The parts which have been described as already in position are then held by hand while the part C is placed over the end of the base and, being turned, is screwed into place, holding the part B at the same time. The two parts are each beveled where they join; but the bevels are so shaped that only as the last two turns are given to the part C when put in place this part will rest on the packing D, so that the soft packing is not rubbed in turning to any extent, and yet by the last two turns of the part C it is compressed, as indicated in Fig. 1, to completely fill the joint and make the casing as a whole absolutely tight.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with an incandescent lamp having a base to be protected, of a casing made in two parts, one part ring-shaped surrounding the base, the other part cup-shaped inclosing the end of the base, and two packing-rings, one between the two parts of the casing and the other between the ring part of the casing and the lamp-base.

2. The combination, with an incandescent lamp having a base to be protected, of a casing made in two parts, one part being ring-shaped surrounding the base and the other part being cup-shaped inclosing the end of the base and provided with a screw connection to the base, whereby it both incloses the end of the base and holds the other part of the casing in position.

3. The combination, with an incandescent lamp having a base to be protected, of a case made in two parts, one part being ring-shaped and provided at each end with a packing and embracing the base of the lamp, while the other part is cup-shaped and embraces the end of the base of the lamp and is provided with a screw connection to said base, whereby it both holds in position the former part of the casing and compresses the packing between the two parts.

4. A casing for the base of an incandescent lamp, made in two parts, one part being provided with means of attachment to the base and holding the other part in position around the base, the parts being shaped to receive a packing between them and also between one part and the lamp.

5. A casing for the base of an incandescent lamp, made in two parts, one part being ring-shaped and the other being cup-shaped, the latter extending above the lower end of the base and compressing a packing between itself and the other part of the casing.

6. A casing for the base of an incandescent lamp, made in two parts, one part embracing said base and the other part provided with a screw-thread for attachment to the said base, the parts being shaped to receive a packing between them.

In testimony whereof we have hereto set our hands the 24th and 25th days of November, 1891, respectively.

GEORGE R. LEAN.  
CHAS. B. BURLEIGH.

Witnesses:

A. P. KNIGHT,  
C. L. HAYNES.