

(No Model.)

E. THOMSON.

LEADING-IN WIRE FOR INCANDESCENT LAMPS.

No. 508,659.

Patented Nov. 14, 1893.

FIG. 1.

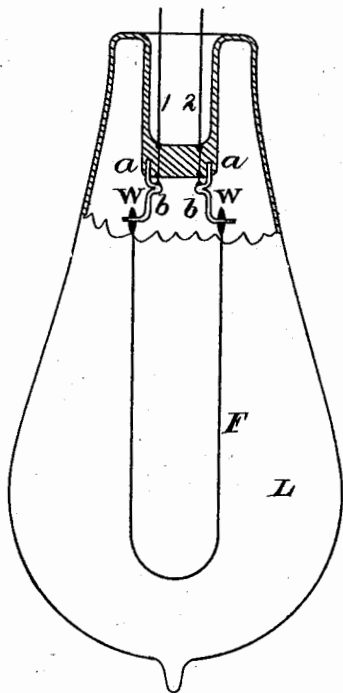
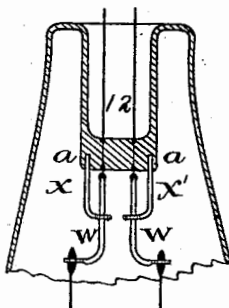


FIG. 2.



WITNESSES.

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ELIHU THOMSON, OF SWAMPSCOTT, MASSACHUSETTS, ASSIGNOR TO THE
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LEADING-IN WIRE FOR INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 508,659, dated November 14, 1893.

Application filed May 23, 1892. Serial No. 434,078. (No model.)

To all whom it may concern:

Be it known that I, ELIHU THOMSON, a citizen of the United States, residing at Swampscott, county of Essex, State of Massachusetts, have invented a certain new and useful Improvement in Leading-In Wires for Incandescent Lamps, of which the following is a specification.

My invention relates to leading-in wires of incandescent lamps and supports for the filaments of the same. It frequently happens that the leading-in wires for conveying the current are not of sufficient stability or stiffness to sustain the weight of the filament itself and the joints without the addition of other devices. Thus, if soft platinum is used to pass through the glass and is sealed therein the soft platinum may be too flexible where it leaves the seal to sustain the weight of a comparatively coarse filament, and a vigorous jar given to the lamp might cause the wires to bend. This difficulty is overcome in my invention by supporting the filament on stout wires which are sustained separately from the sealing wires.

In the drawings Figure 1 is a central longitudinal section of a lamp embodying my invention, and Fig. 2 is a modification.

L is a lamp bulb containing the filament F. This filament is securely attached to comparatively coarse wires W W anchored in the glass seal of the lamp *a a*. The current carrying wires 1 2 pass through the glass, being made of platinum of comparatively small gage and are attached at *b b* to the heavy sustaining wires W W, the whole forming a rigid and cheap arrangement embodying all the desirable features required.

In the modified construction shown in Fig. 2 wires W W are supported by secondary wires

X X' one end of which is sealed into the glass as before at *a a* and the other end of which is made into a loop loosely surrounding or firmly attached to the wires W W. In this case the ends of the wires W W not attached to the filament are secured to the leading-in wires 1 2 which may be of small gage as before and upon which no considerable strain is thrown as the supports X X' prevent damage.

My invention is particularly applicable to lamps working with considerable strength of current or in which the carbon filament F is very long and comparatively coarse.

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

1. In an incandescent lamp, the combination with the filament and the leading-in wires, of separate supports for said filament sealed into the stem of the lamp, and serving to connect the leading-in wires with the filament, substantially as described.

2. In an incandescent lamp, the combination with stout metallic supports fused into the stem of the lamp, of a filament attached to said supports, and leading-in wires connected with said supports, substantially as described.

3. In an incandescent lamp, a filament having its ends attached to adjacent but separate metallic supports fused into the stem of the lamp, and leading-in wires passing through said stem and having their inner ends connected with said supports, substantially as described.

In witness whereof I have hereto set my hand this 20th day of May, 1892.

ELIHU THOMSON.

Witnesses:

JOHN GIBBONEY,
BENJAMIN B. HULL.