

No. 653,038.

Patented July 3, 1900.

J. PLECHATI.
INCANDESCENT ELECTRIC LAMP.

(Application filed Nov. 13, 1899.)

(No Model.)

Fig: 1.

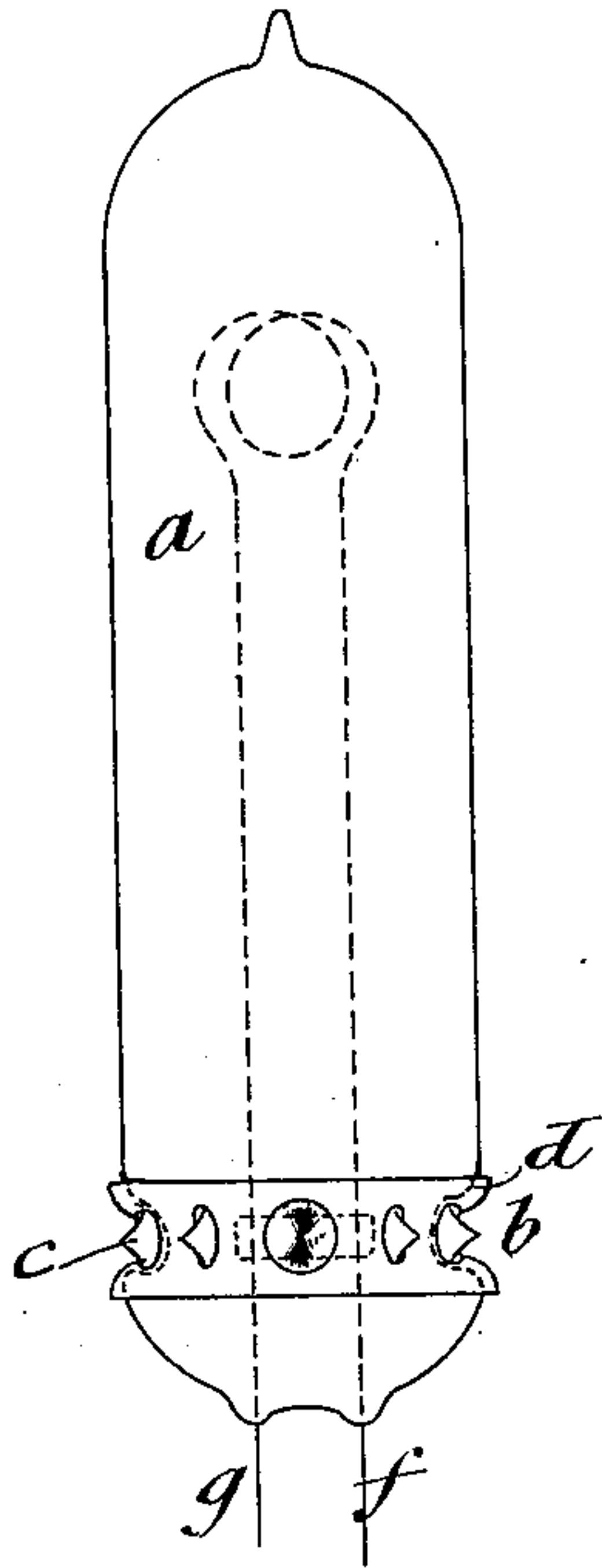


Fig: 2.

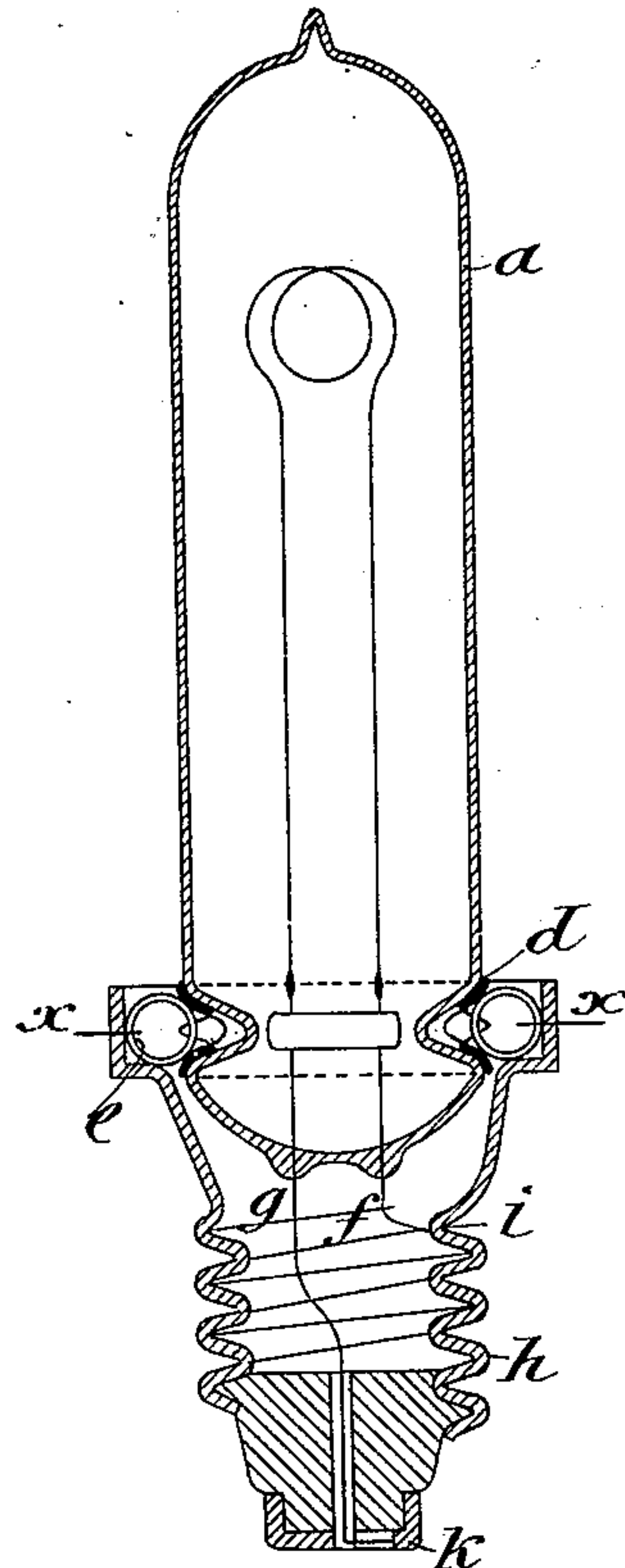
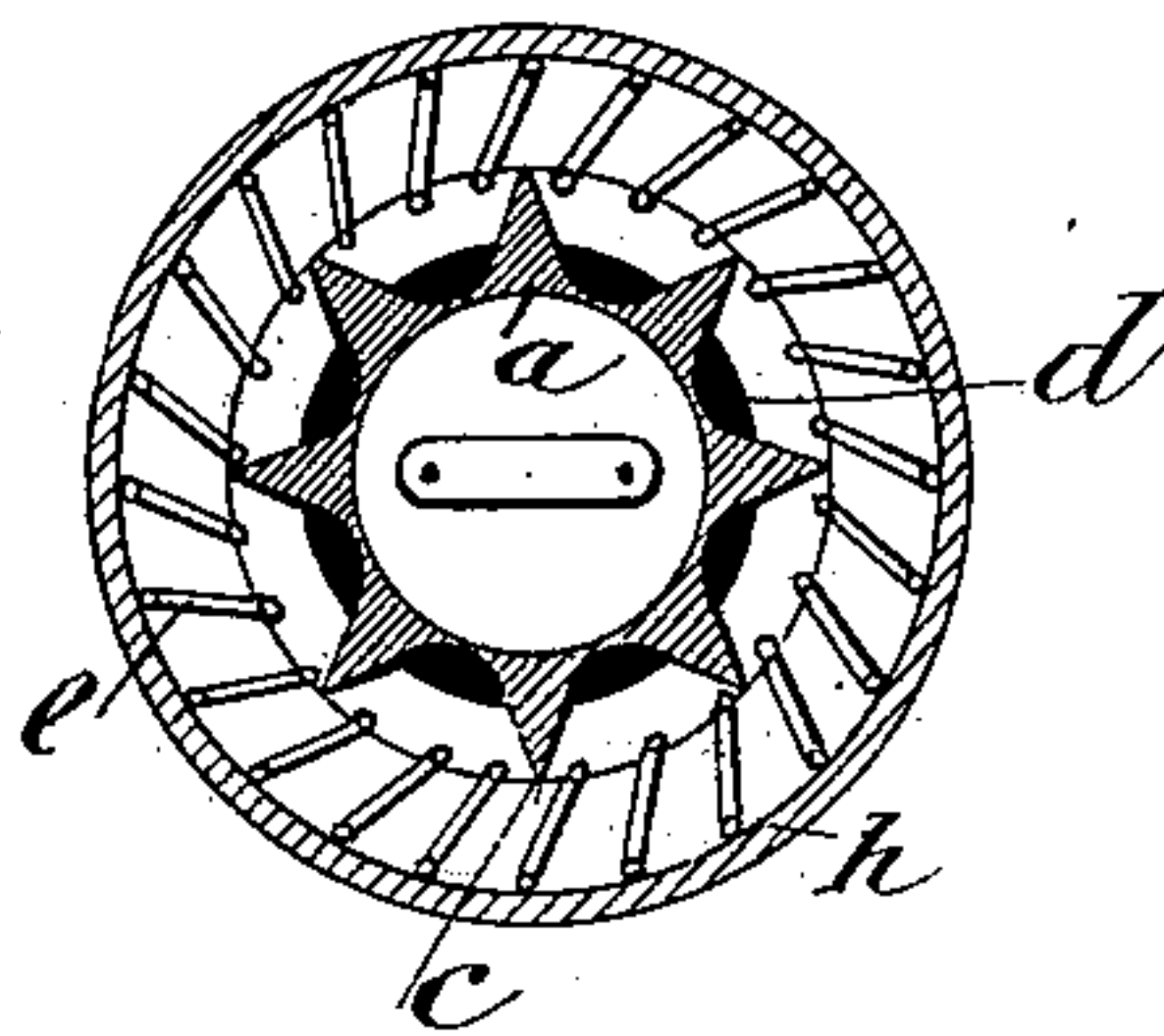


Fig: 3.



WITNESSES:

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JOSEF PLECHATI, OF BERLIN, GERMANY.

INCANDESCENT ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 653,038, dated July 3, 1900.

Application filed November 13, 1899. Serial No. 736,757. (No model.)

To all whom it may concern:

Be it known that I, JOSEF PLECHATI, a citizen of the Empire of Germany, residing in Berlin, in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Incandescent Electric Lamps, of which the following is a specification.

This invention relates to improvements in incandescent electric lamps, and more particularly to improvements in that class of lamps in which the bulb is made easily detachable from its socket, so that it may be without difficulty removed therefrom whenever it is desired to repair either the bulb or socket or to exchange the bulb for one of another color, as may sometimes be desired for decorative purposes.

The object of the invention is to provide for such lamps a secure and reliable and at the same time simple means for connecting the bulb to the socket; and the invention consists in the combination, in an incandescent electric lamp, of a socket, a lamp-bulb having a contracted portion or neck, points or teats projecting from said neck, and a helical spring interposed between and in frictional contact with the socket and lamp-bulb, said points or teats entering between the convolutions of said spring and preventing the turning of the lamp-bulb relatively thereto.

The invention consists, further, in the interposition of a friction-layer or roughened layer of any suitable material between the helical spring and the lamp-bulb, so that the metallic spring does not come into direct contact with the bulb.

In the accompanying drawings, Figure 1 is a side view of an incandescent lamp-bulb constructed according to my invention. Fig. 2 is a vertical central section through the bulb and socket; and Fig. 3 is a horizontal section on line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

In the drawings, *a* indicates the bulb of my improved incandescent electric lamp. The bulb is preferably made of glass and is provided at its lower portion with a contraction or neck *b*, from which project small points or teats *c*, which are preferably made integral with the bulb. A band *d*, of any suitable frictional material, is placed around

the bulb at the contracted portion or neck *b* and provided with perforations through which project the teats *c*, as shown in Fig. 1. The socket of the lamp consists of a sheet-metal casing or shell *h*, which is provided with an exterior screw-thread in the usual manner and with a body of cement or other suitable insulating material at the bottom of the shell and a metallic tip *k* at the extreme base of the socket. At its upper portion the sheet-metal shell is provided with an annular shoulder or flange and an upright rim surrounding said shoulder. In the seat thus formed is located a helical spring *e*. When the glass lamp-bulb is inserted in the socket, the spring, which has been previously inserted in the socket, enters the contracted portion of the bulb and is pressed into frictional contact at the one side with the socket-wall and at the other side into frictional contact with the friction-layer *d*, as clearly shown in Fig. 2. At the same time the teats or points *c* enter between the convolutions of the helical spring, as shown in Figs. 2 and 3. By so doing they prevent the turning of the bulb relatively to the spring and socket, while the friction of the spring with the socket-rim and its engagement with the neck of the bulb prevent the withdrawal of the bulb from the socket under ordinary use, although the friction is not so strong as to prevent forcible withdrawal when desired. The layer *d*, of roughened material, prevents the direct contact of the metallic spring with the heated bulb, and thereby aids in keeping down the temperature of the spring, so that it retains its temper and strength. For this purpose the layer *d* is preferably made of some material which is a non-conductor or a poor conductor of heat. By its friction it serves to prevent the accidental withdrawal of the bulb from the socket.

The conducting-wires for the incandescent lamp are connected to the filament of the lamp-bulb and at their opposite ends, respectively, to the metallic shell *h* of the socket and tip *k* of the same. It is obvious that the socket-wall *h* may be of any suitable shape at its upper portion and not confined strictly to the form shown, although by reason of its upright rim the latter possesses the advantage of permitting the insertion of a bulb,

which has the spring already sprung upon it, as well as the removal of the bulb with the spring remaining contracted around the same.

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

1. In an incandescent electric lamp, a socket, a lamp-bulb having a contracted portion or neck, points or teats projecting from said neck, and a helical spring interposed between and in frictional contact with the socket and lamp-bulb, said points or teats entering between the convolutions of said spring and preventing the turning of the lamp relatively thereto, substantially as set forth.

2. In an incandescent electric lamp, a socket, a lamp-bulb having a contracted portion or neck, a layer of heat-insulating material applied to the contracted portion or neck of the bulb, and a helical spring interposed between and in frictional contact with the socket and said heat-insulating layer, substantially as set forth.

3. In an incandescent electric lamp, a

socket, a lamp-bulb having a contracted portion or neck, a friction-layer applied to the contracted portion or neck of the bulb, and a helical spring interposed between and in frictional contact with the socket and said friction-layer, substantially as set forth.

4. In an incandescent electric lamp, a socket, a lamp-bulb having a contracted portion or neck, points or teats projecting from said neck, a perforated friction-layer applied to the contracted neck or bulb, and a helical spring interposed between and in frictional contact with the socket and said friction-layer, said points or teats passing through the perforations of said friction-layer and entering between the convolutions of said spring, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOSEF PLECHATI.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.