No. 697,458. Patented Apr. 15, 1902.

H. J. DOWSING.

ELECTRIC LAMP AND LAMP HOLDER.

(Application filed Oct. 28, 1901.)

(No Model.)

Fig. 1.

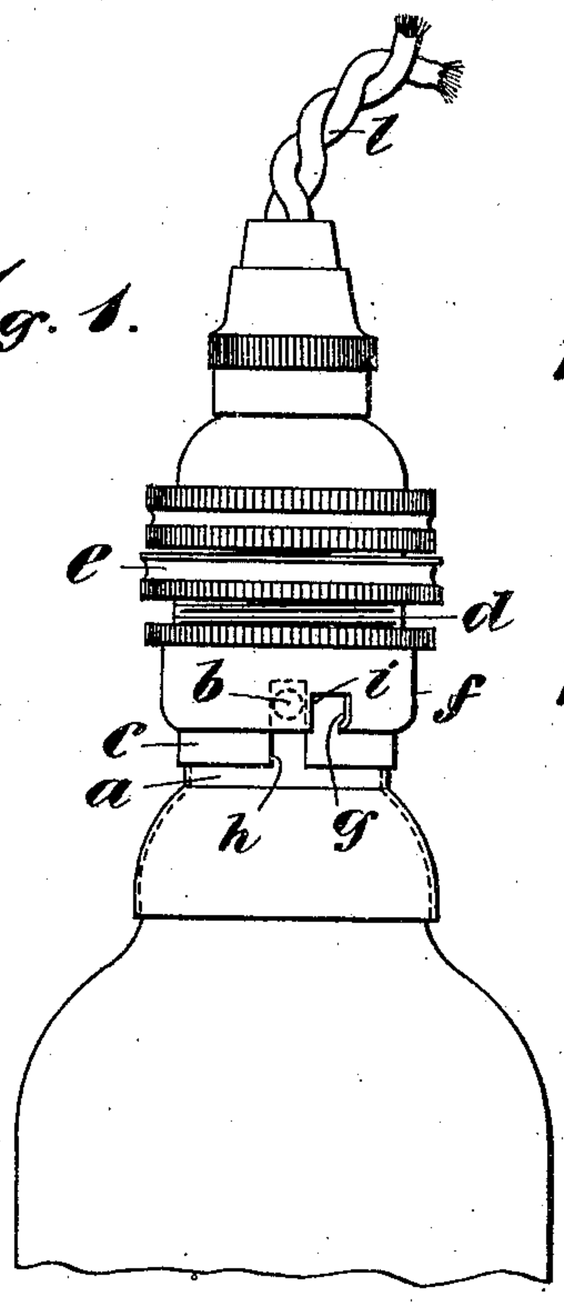
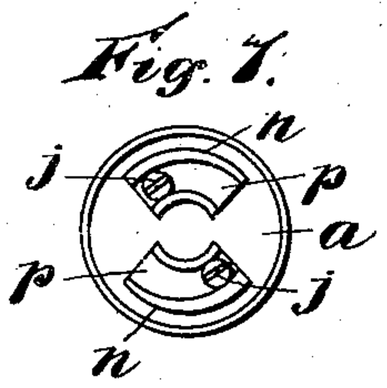


Fig. 7.



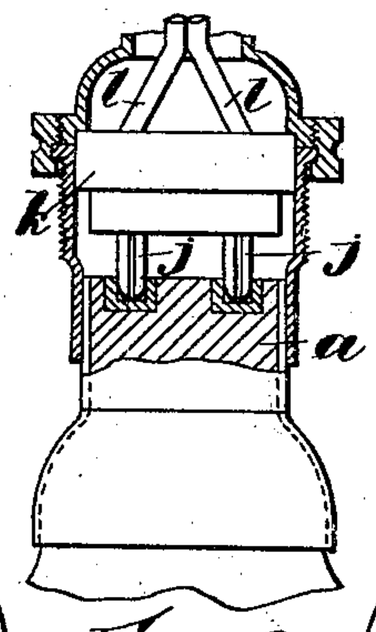


Fig. 6.

Fig. 2.

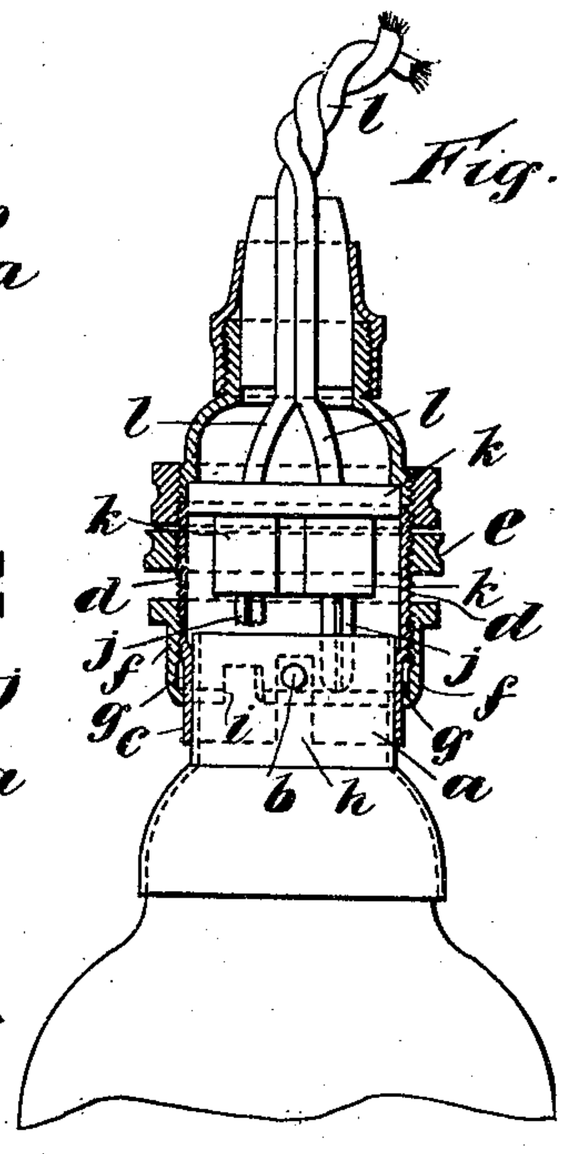


Fig. 4.

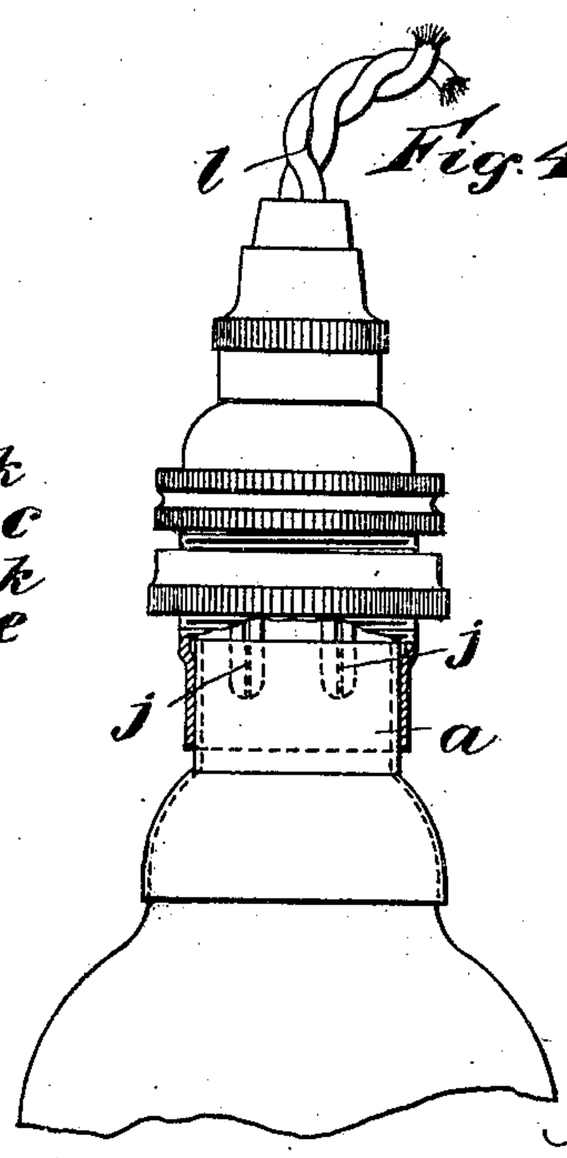


Fig. 3.

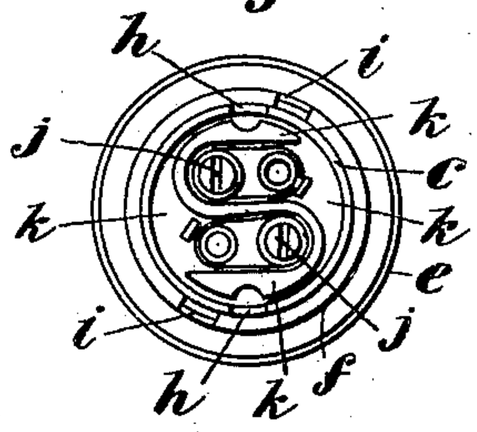
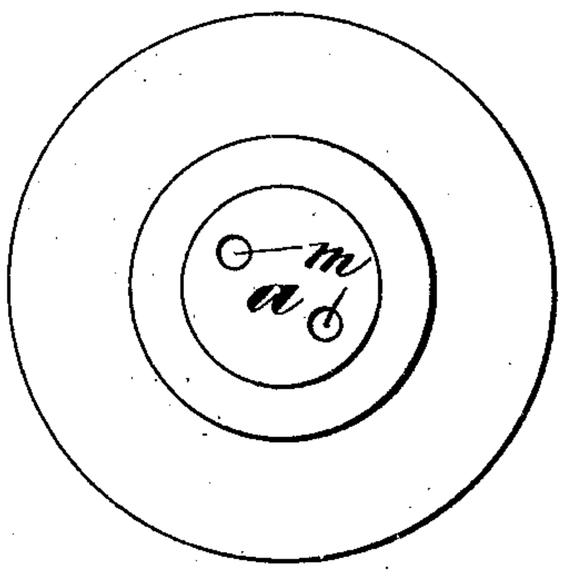


Fig. 5.



Witnesses.

David Hemsley.

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UNITED STATES PATENT OFFICE.

HERBERT JOHN DOWSING, OF LONDON, ENGLAND.

ELECTRIC LAMP AND LAMP-HOLDER.

SPECIFICATION forming part of Letters Patent No. 697,458, dated April 15, 1902.

Application filed October 28, 1901. Serial No. 80,282. (No model.)

To all whom it may concern:

Be it known that I, HERBERT JOHN DOWSING, a subject of the King of Great Britain, residing at London, England, have invented certain new and useful Improvements in and Connected with Electric Lamps and Lamp-Holders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in and connected with incandescent lamps and holders therefor, whereby perfect electrical contact is insured between the lamp and the holder, and the lamp may be connected or disconnected with the minimum amount of movement of the parts of the holder itself.

In the accompanying drawings, Figure 1 is an elevation, and Fig. 2 a longitudinal section, of a portion of a lamp and its holder fitted in accordance with my invention. Fig. 3 is a plan view of the interior of the holder shown in Figs. 1 and 2. Fig. 4 is a similar view to Fig. 1, but illustrating a slight modification. Fig. 5 is an end view of the lamp shown in Fig. 4. Fig. 6 is a similar view to Fig. 2, but illustrating a further modification; and Fig. 7 is an end view of the lamp shown in Fig. 6.

Similar letters of reference relate to like parts in all the figures of the drawings.

Referring to Figs. 1, 2, and 3, *a* is the stem of the lamp, furnished with two radial projections or pins *b*, preferably diametrically opposite to one another in the usual manner, as shown. The outer end of the lamp-holder is made in the form of a tubular socket *c* and is adapted to receive the stem *a* of the lamp. *j j* are two spring split pins mounted in and projecting from the insulating-block *k* in the lamp-holder and connected with the conducting-wires *l* in a manner well understood in connection with this kind of apparatus. The spring split pins *j j* are adapted to enter corresponding tubes or holes in the stem *a* of the lamp, thereby securing a sliding metallic electrical contact between the parts. The exterior of the tubular socket *c* is furnished with a screw-thread *d* to receive the screwed collar *e* for retaining the lamp-shade in place or for clamping the holder in position in a stove, for example. This external screw *d* also serves to receive an internally-screwed sleeve *f*, somewhat resembling the sleeve of a pipe-union and having a groove or recess *g*, formed on its internal circumference. The outer end of the tubular socket *c* and also the outer end of the internally-threaded sleeve *f* have notches *h* and *i* formed therein, which notches correspond in position to the radial pins or projections *b* on the stem *a* of the lamp. The said stem is pressed into the tubular socket *c*, its two pins *b* entering the before-mentioned notches *h* and *i*, formed in the walls of the socket *c* and screwed sleeve *f*, the latter being turned into such a position as to cause its notches *i* to coincide with the notches *h* in the tubular socket *c*. As soon as the lamp is in place the screwed sleeve *f* is turned until its notches *i* no longer coincide with the notches *h* in the walls of the tubular socket *c*, the ends of the radial pins or projections *b* on the stem *a* of the lamp entering the before-mentioned groove or recess *g* on the internal circumference of the screwed sleeve *f*, and the lamp is thus held securely in place. It will be understood that the rotation of the screwed sleeve *f* will also tend to draw the stem of the lamp, by means of its radial pins or projections *b*, farther into the tubular socket *c* of the holder, and thus insure perfect electrical contact between the parts.

In the modification illustrated in Figs. 4 and 5 the radial pins or projections *b* on the stem *a* of the lamp and the screwed sleeve *f* are dispensed with, the lamp being retained in position and electrical contact insured by the frictional grip of the spring split pins *j* in the holes *m* of the stem *a* of the lamp, and in some cases I supplement the frictional grip of the spring split pins *j* by the addition of spring devices in connection with the holder itself.

Figs. 6 and 7 illustrate a modification of the stem *a* of a lamp and its holder in which the well-known form of bayonet-joint may be employed for connecting the lamp-holder to the stem *a* of the lamp. In this case the spring split pins *j* are not pressed into circular holes—as in Figs. 2 and 4, for example—but they are brought into sliding and spring contact with segmental contact-plates *n*, in which tapered grooves *p* are formed and into

which the spring split pins *k* slide and against the walls of which the said pins may be more or less tightly wedged as the stem *a* of the lamp is being adjusted in the bayonet-slot of the holder.

It will be understood that the spring split pins *j* are fixed in the insulating-block *k*, the only spring action being due to the tendency of the split ends to separate when free or be closed together when forced into a hole *m* or a groove *p*.

I claim—

In combination, a tubular lamp-holder, or socket, a pair of split spring-pins within the same, the edge of the holder projecting beyond the ends of the pins, a lamp having a neck adapted to telescope within said tubular holder, and metal contact-tubes embedded in the insulating material in the stem of the lamp, said pins being adapted to slide into and make perfect contact with said contact-tubes, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HERBERT JOHN DOWSING.

Witnesses:

DAVID HUNTLEY,

STEPHEN EDWARD GUNYON.