A. L. LOWE.

SOCKET LOCK FOR INCANDESCENT LAMPS.

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923,284.

Patented June 1, 1909.

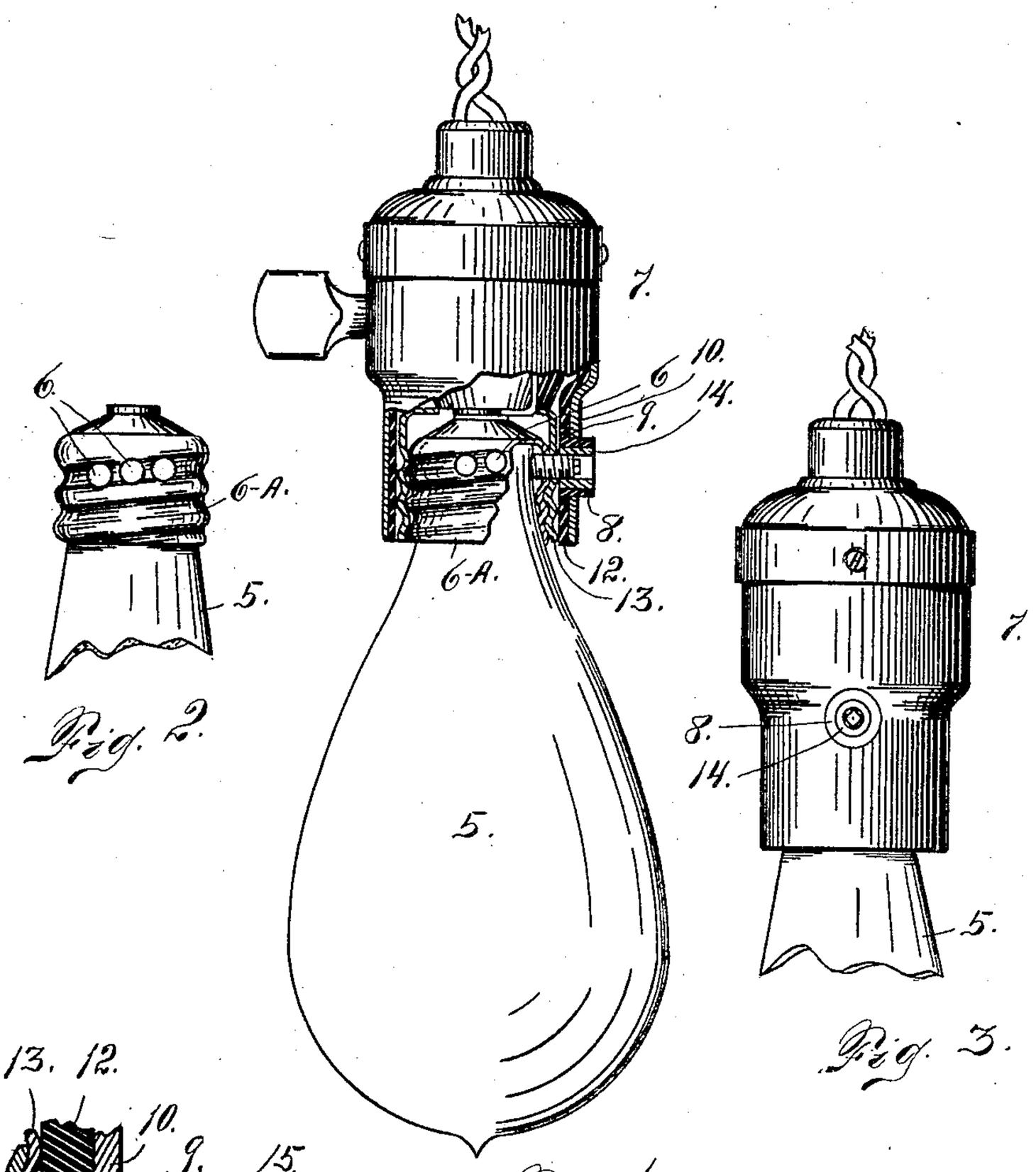

Fig. 1.

Fig. 2.

Fig. 3.

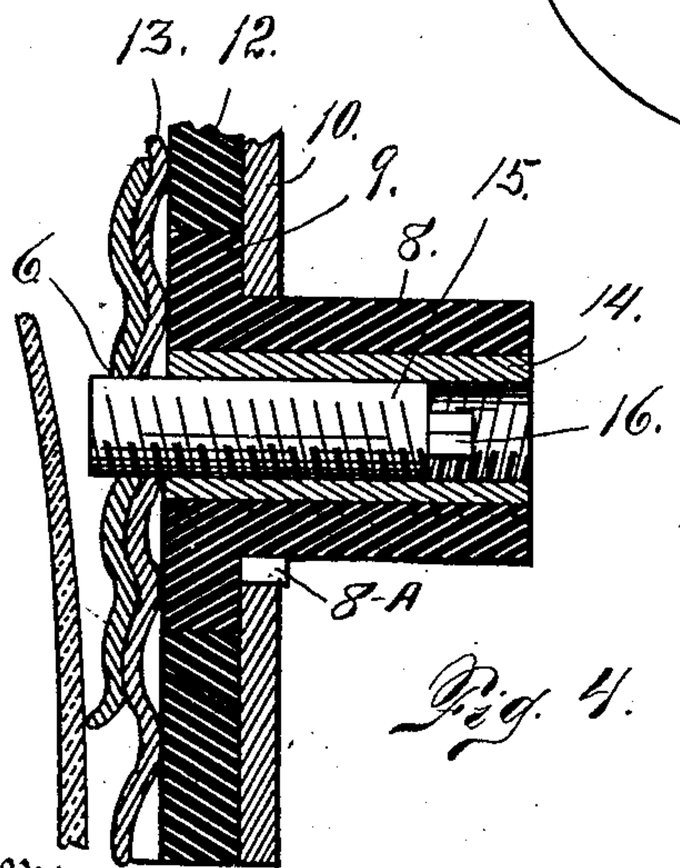

Fig. 4.

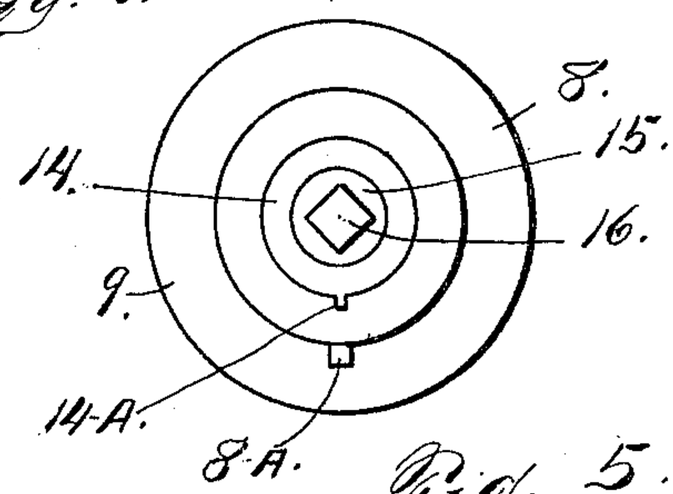

Fig. 5.

Witnesses

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SOCKET-LOCK FOR INCANDESCENT LAMPS.

No. 923,284. Specification of Letters Patent. Patented June 1, 1909.

Application filed May 13, 1907. Serial No. 373,503.

To all whom it may concern:

Be it known that I, ABBOTT L. LOWE, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Socket-Locks for Incandescent Lamps; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to means for locking incandescent lamps in their sockets, both to prevent the lamps from becoming loose and partially breaking the circuit, and also to prevent the theft of these lamps. It often happens that incandescent lamps as the sockets are now constructed, gradually work loose and partially break the circuit between the electrode in the neck of the lamp and the contact which it should closely engage, with the result that there is an electric arc formed between the two contacts, whereby both are corroded and rendered incapable of properly closing the circuit even after the lamp is returned to its proper position. It also frequently happens that incandescent lamps are stolen, since as the sockets are now constructed these lamps are readily removable therefrom.

As heretofore intimated, the object of my invention is to overcome both of these difficulties, and to this end I provide a locking device, including a screw pin adapted to be adjusted from the outside of the socket, whereby the said pin is caused to enter a recess or opening formed in the metal neck of the lamp, thus making it impossible to remove the same, and also holding the lamp in such position that the aforesaid electrode is in proper engagement with its adjacent contact member of the circuit. This screw pin is threaded in an insulating sleeve, and its outer extremity is so shaped that it can only be operated by a special construction of key. Hence it not only holds the lamp in position and prevents it from being removed either by accident or design, but the pin cannot be unscrewed, except by a person having a proper key for the purpose.

Having briefly outlined my improvement as well as the function to be subserved thereby, I will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 shows an incandescent lamp with the socket partially in section, the latter being equipped with my improvement. Fig. 2 is a detail view showing the upper part of the lamp, its metallic threaded portion or neck having a recess for the inner extremity of the screw pin. Fig. 3 is an elevation of the lamp and socket, the lower part of the lamp being broken away. Fig. 4 is an enlarged sectional view illustrating my improved locking device. Fig. 5 is an end view of the locking device shown in detail.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate an incandescent lamp whose threaded neck portion is provided with a recess 6 formed in the metal shell thereof. The lower part of the socket 7, is provided with an opening in which is inserted an insulating sleeve 8 having an interior flange 9 extending outwardly from the body of the sleeve. This flange 9 engages the metal shell 10 of the socket on the inside and is the same thickness as the insulating coating 12 of the shell, the said coating being recessed to receive the said flange. Hence this flange is located between the outer shell 10 of the socket and the interiorly threaded bushing 13 into which the metal neck 6^A of the lamp is screwed. Hence after the insulating sleeve is inserted in the shell, and the bushing 13 which is connected with the body of the socket, put *in positio* shell, the sleeve is locked in place against removal until the socket is taken apart. The insulating sleeve 8 is provided with a metallic lining 14 threaded to receive a screw pin 15 whose inner extremity is adapted to enter the opening 6 of the neck of the lamp. The outer extremity of this screw pin is preferably formed of such design as to make it necessary that a special construction of key shall be employed in order to operate the pin. As shown in the drawing the outer extremity 16 of this screw pin is formed angular in cross section making it necessary that a person shall have a key with a socket of counterpart shape, in order to manipulate the screw pin. This construction is simply for the purpose of illustrating the idea. It is evident that the

outer extremity of this screw pin may be of any design and also that the design may be varied whereby the lamps in any particular establishment or plant, may have one design of a screw pin while the lamps of other establishments or plants may have other designs whereby each establishment shall have a peculiar key. In this way incandescent lamps may be rendered as secure against removal either by accident or design, as the doors of buildings each of which has a special construction of lock requiring a peculiar key.

In the drawing I have illustrated my improvement in connection with an interiorly threaded socket, requiring a lamp having a threaded neck. In other words I have shown the device applied to the Edison form of lamp and socket. It is evident that the invention is also equally applicable to other forms of socket.

The insulating sleeve 8 is provided with a lug 8^A projecting from its body portion, and engaging a counterpart recess formed in the shell 10 of the socket, to prevent the rotation of the sleeve during the manipulation of the screw pin. The threaded bushing 14 is also provided with a feather or spline 14^a, adapted to enter a groove of counterpart shape formed in the sleeve 8, to prevent the bushing from turning in the sleeve.

From the foregoing description the use of my improved device will be readily understood and need not be described more in detail.

It is evident that my improvement may be applied to any sort of lamp socket or holder where the lamps are readily removable in the absence of a locking device.

It is preferred to form a number of recesses 6 in the neck of the lamp, to facilitate the locking of the latter in place. These recesses may be either openings formed in the metal part of the neck or simply indentations of sufficient depth for the purpose.

Having thus described my invention, what I claim is:

The combination with an incandescent lamp and socket or holder, of an insulating flanged sleeve inserted in an opening formed in the side, said sleeve having a lug engaging the recess formed in the shell of the socket to prevent the rotation of the sleeve, an inner sleeve mounted in the insulating sleeve having a central interiorly threaded portion, a locking pin threaded in the latter and adapted to enter an opening formed in the neck of the lamp for the purpose set forth.

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

ABBOTT L. LOWE.

Witnesses:
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DENA NELSON.