T. DEADERICK.

ELECTRICAL APPLIANCE.

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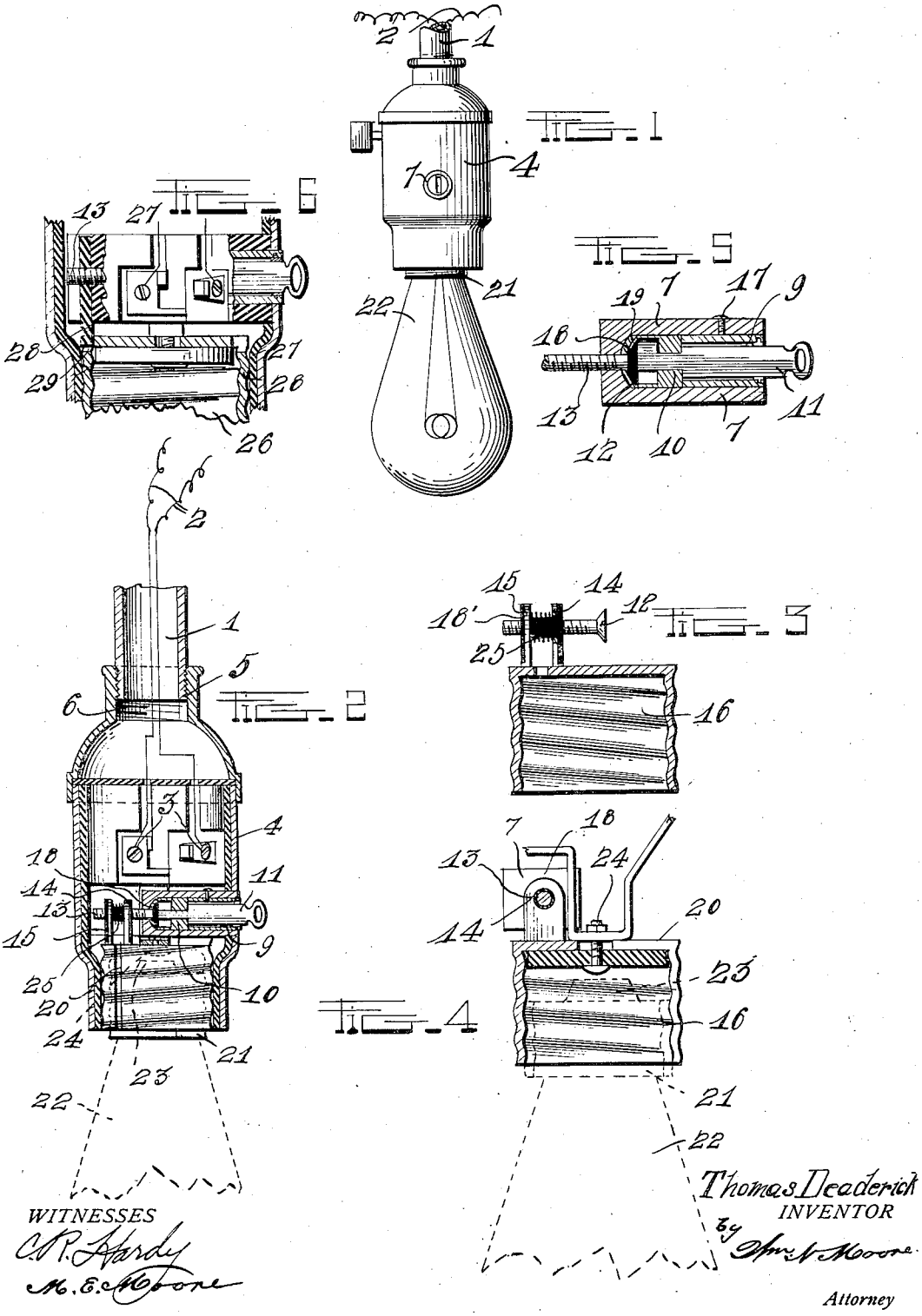
1,052,044. Patented Feb. 4, 1913.



WITNESSES

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ELECTRICAL APPLIANCE.

1,052,044. Specification of Letters Patent. Patented Feb. 4, 1913.

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To all whom it may concern:

Be it known that I, THOMAS DEADERICK, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Electrical Appliances, of which the following is a specification.

My invention relates to improvements in electrical appliances, and refers particularly to a device for preventing the surreptitious removal of the lamp or bulb from the socket of an electric light.

The leading object of the invention is to provide a locking means which will effectually prevent the unauthorized removal of an incandescent lamp bulb from its socket, and which will at the same time permit the proper person to remove the bulb from its socket quickly and easily.

Another object of the invention is to provide a locking arrangement which may be applied to either an inside split screw shell or upon a loose or revolving inside screw shell.

A further object of the invention is to provide a locking arrangement for bulbs which will be simple in construction and can be employed upon all types of sockets in general use today without necessitating materially changing the type of socket or providing a special socket, and which will possess merit in point of inexpensiveness and practicability to commend itself to all persons desiring an efficient lock of the character stated.

To attain the desired objects, the invention broadly stated, consists in the provision of a socket and shell embodying novel features of construction and combination of parts for service, substantially as disclosed herein.

In order that the detailed construction and operation of my improvement may be clearly understood and its many advantages fully appreciated, I have illustrated in the accompanying drawing a socket and lock constructed in accordance with and embodying my invention.

Figure 1 is a side elevation of the complete socket, lock and lamp. Fig. 2 is a vertical sectional view of the complete invention, taken at right angles to the view shown in Fig. 1. Fig. 3 is a detail view of the split collar or shell forming an important part of the invention. Fig. 4 is a detail view at right angles to the view shown in Fig. 3. Fig. 5 is a side elevation in section and on an enlarged scale of the locking key and key passage, and Fig. 6 is a vertical sectional fragmentary view of a loose or revolving shell with my improvement in applied position.

Referring by numeral to the accompanying drawing, in which similar characters of reference denote corresponding parts in the several views:—the numeral 1 designates a portion of a tubular rod or fixture, through which the conducting wires 2 are passed, to the contact plates 3, of the socket 4, having its upper end threaded at 5 to engage the corresponding threads 6, of the rod 1, or the threads of an insulating bushing, when a lamp cord is used.

The numeral 7 designates an insulating filler or block, inclosed in the socket, and provided with a key passage 9 and a key guide 10, through which a key 11 is passed to engage the slotted head 12 of the threaded screw 13, passing through the alining openings of the ears 14 and 15, formed upon the screw shell 16 of the lamp socket 4. A small screw 17 is employed to retain the key guide in place within the insulating filler 7.

To prevent current from passing to the key 11, I may either insulate the head of the screw from the screw itself, as at 18, or I may secure fiber or other insulating material 18′, upon the ears 14 and 15 of the shell. To prevent picking of the lock by improper persons, the head 12 of the screw may be slotted, squared, triangular, hexagonal, or in fact recessed or projected in any manner desired, while the key and key passage and guide may be formed of a shape to correspond with the head.

To prevent the head of the screw from becoming removed from the ears 14 and 15, the outer ear 14 is unthreaded and the ear 15 is threaded, while a recess or seat 19 is formed in the filler 7, to receive the screw head and permit it to turn freely.

The shell or collar 16 is split along one side as at 20, and is threaded to engage the threads of the lamp shell 21 of the lamp 22, provided with the usual contact member 23, adapted to make contact with the contact screw 24 of the socket shell 16. To insure the proper binding action of the shell 16, when the bulb is to be locked, the screw 13

is passed transversely through the ears 14 and 15, while to insure that the inside screw shell will open readily and easily when it is desired to remove the bulb, I may provide the screw with a coil spring 25, which will be compressed when the ears are moved toward each other and will serve to distend the ears when the bulb is removed.

In the form of my invention shown in Fig. 6, wherein a loose or revolving inside shell 26 is employed, the screw 13 is passed through the usual insulation 27 of the socket and carries upon its inner end a finger 28, which engages in one or more offsets 29, formed in the shell, when the key is moved to rotate the screw and lock the bulb. The finger 28 is formed of insulating material and the current is thus prevented from passing to the key 11, as will be readily understood.

From the foregoing description, taken in connection with the accompanying drawing, it will be readily seen that the shell of the lamp and the shell of the socket are screwed one within the other, and owing to the split arrangement of the socket shell, the key will cause the screw to compress the split collar or shell and thus cause the same to clamp the lamp shell. In the case of the revolving or loose type of inside screw shell, the screw causes the fiber finger to engage in one of the offsets, and the shell is thereby locked.

It will thus be seen that I have provided an exceedingly simple and practical lock for the purposes stated, which cannot be tampered with by unauthorized persons, and which will permit the ready removal and application of the lamp bulb by the proper persons.

While I have shown and described the lock shell used in connection with a threaded screw, it will readily be seen that I may modify the construction very easily and use a stud and having an irregularly shaped head on one or both ends thereof, which heads would work on irregular faces and when turned have the same effect of locking the shell of the socket.

I claim:—

1. In an electrical appliance, the combination of the lamp and the socket or shell, of means mounted in the shell and having a clamping engagement with the connecting portion of the lamp to secure the lamp in the shell, said means consisting of a surrounding collar or band adapted to clampingly engage the connecting portion of the lamp.

2. In an electrical appliance, the combination of the lamp and the socket, of a split shell or collar fitting in the socket and connecting the lamp, and means for binding the split collar upon the connecting end of the lamp to lock the lamp in the socket.

3. The combination with a socket having a split collar or shell, of a lamp having a shell adapted to be engaged by the split collar, and means operated exteriorly of the socket adapted to cause the split collar to clampingly engage the lamp shell.

4. The combination with a socket having a split collar or shell, of a lamp having a shell adapted to be engaged by the split collar, and a tension device carried by the split collar adapted to be engaged from the exterior of the shell to cause the collar to clampingly engage the lamp shell.

5. A locking device for lamps, comprising a split collar mounted in the socket and having a binding engagement with the lamp shell when locked.

6. A locking device for lamps, comprising a split collar mounted in the socket and having a binding engagement with the lamp shell when locked, and means for releasing the binding engagement of the collar upon the lamp shell.

7. The combination with a socket having a split collar or shell, of a lamp having a shell adapted to be engaged by the split collar, ears formed upon the split collar, and a tension device carried by the ears of the split collar adapted to be engaged to cause the collar to clampingly engage the lamp shell.

8. The combination with a socket having a split collar and a key passage, of a lamp having a shell adapted to be engaged by the split collar, upstanding ears formed upon the split collar, a tension device passing transversely through said ears, and a locking element passing through the passage of the socket and engaging the tension device to cause the split collar to engage the lamp shell.

9. The combination with a socket and a lamp adapted to be connected with the socket, of a split collar engaging the lamp and socket, a clamping means for binding the split collar upon the connecting end of the lamp to lock the lamp in the socket, and a key to operate the means for binding the collar to effect the locking and unlocking.

10. In combination with the socket and lamp, a split collar mounted within the socket, a screw for engaging the split collar to clamp and release the collar from the lamp, and means for operating the screw.

11. In combination with the socket and lamp, a split collar mounted within the socket, a screw for engaging the split collar to clamp and release the lamp from the collar, and a key for operating the screw.

12. In combination with the socket and lamp, a split collar, a screw for operating the collar to clamp and release the collar from the lamp, a key passage formed in the socket, and a key for operating the screw to release the collar and thus the lamp.

13. In combination with the socket and lamp, a split collar formed with upstanding ears, a tension device passing transversely

through said ears, operating means for said tension device, and means carried by said tension device and adapted to distend the ears when the lamp is to be unlocked.

14. In combination with a socket and lamp, a clamping member carried by the socket, upstanding ears formed upon the member, a key passage formed in the socket, a tension device passing transversely through the ears, a key passing through the key passage and engaging the tension device, and a spring member carried by the tension device intermediate the ears for distending the ears when it is desired to unlock the lamp from the clamping member.

15. In a locking device, the combination with a lamp and a socket, of a locking member contained entirely within the socket and completely encircling the shell for locking the lamp and shell.

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

THOMAS DEADERICK.

Witnesses:

S. V. DEADERICK,

D. S. HART.