C. BLASS.

SELF LOCKING LAMP BULB.

APPLICATION FILED APR. 15, 1913.

1,082,397. Patented Dec. 23, 1913.

Fig. 1.

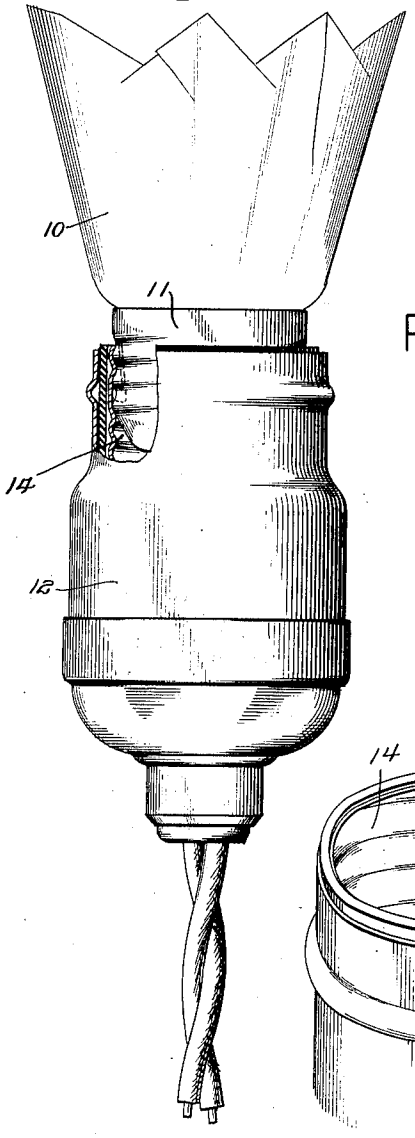


Fig. 6.

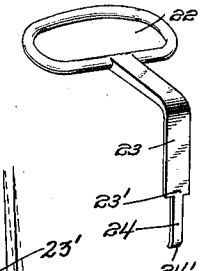


Fig. 2.

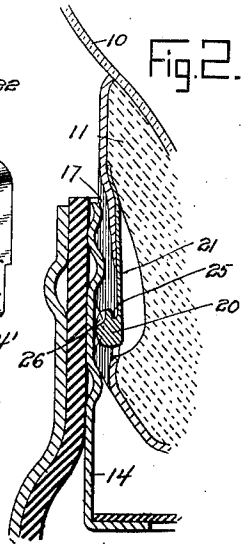


Fig. 5.

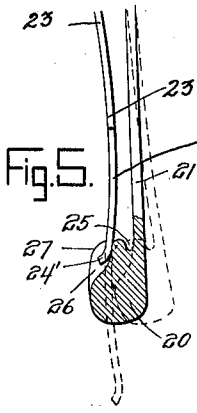


Fig. 4.

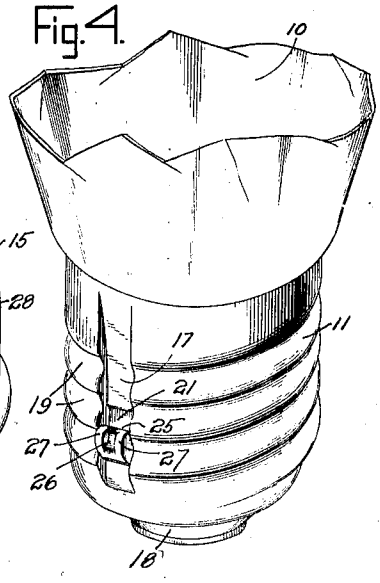
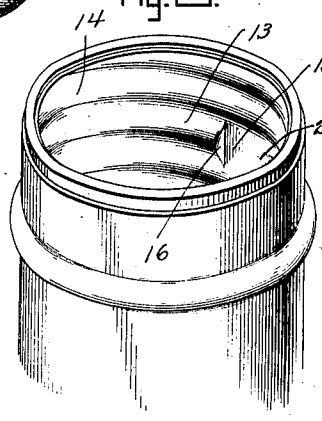


Fig. 3.



WITNESSES

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SELF-LOCKING LAMP-BULB.

1,082,397. Specification of Letters Patent. Patented Dec. 23, 1913.

Application filed April 15, 1913. Serial No. 761,260.

To all whom it may concern:

Be it known that I, CONRAD BLASS, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Self-Locking Lamp-Bulb, of which the following is a full, clear, and exact description.

This invention relates to electric lighting devices and has particular reference to a means for preventing the unauthorized removal of incandescent electric lamps from their sockets, a source of a great deal of annoyance and financial loss incident to the use of such lamps in public places.

Among the objects of the invention, therefore, is to devise a locking means coöperating between the lamp base and its socket which will operate automatically to secure the parts together and which requires a special form of key for unlocking.

Another object of the invention is to produce an electric lamp bulb lock of an invisible and hence inconspicuous nature.

The foregoing and other objects of the invention will hereinafter be more fully described and claimed and illustrated in the drawings forming a part of this specification in which like characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is an elevation of a lamp base and its socket, partly broken away, showing the relation thereto of my improvement; Fig. 2 is a longitudinal sectional view through the lock, the parts being shown on a large scale; Fig. 3 is a perspective view showing the inside of the socket; Fig. 4 is a corresponding view of the lamp base; Fig. 5 is a detached view of the locking bolt showing in full lines the relation of the key thereto in its initial position, and in dotted lines the relation of the parts in unlocking position; and Fig. 6 is a perspective view of the key.

The several parts of the device may be made of any suitable materials, and the relative sizes and proportions of the same may be varied somewhat without departing from the spirit of the invention hereinafter more fully set forth and specifically claimed.

By way of illustration of a preferred embodiment of this invention, I show at 10 a lamp bulb having a base 11 adapted for threaded coöperation as usual with the socket member 12. These parts are or may be of any usual conventional form and provided with their usual electrical connections which *per se* form no part of this invention.

As shown especially in Fig. 3, one of the threads 13 of the socket contact sleeve 14 is interrupted forming a notch 15 having a comparatively square shoulder 16. The socket member otherwise has the same appearance and characteristics as any other ordinary socket, no change in the outside appearance, therefore, being made.

The base of the lamp is formed with a longitudinal groove or depression 17 extending toward its point 18 from a point adjacent the bulb. Said groove, therefore, intersects several of the threads 19 of said part. A locking bolt 20 is mounted within said groove 17 of the base and is carried on the end of a spring arm 21 the other end of which is secured beneath the base shell adjacent the outer end of the groove 17. The normal position of the locking bolt is shown in Figs. 2 and 4, and when the lamp is in place said bolt coöperates in the notch 15 serving to prevent the unscrewing of the lamp from the socket, the locking bolt tending to abut against the shoulder 16 and being held in such position by the force of the spring 21. The spring and the bolt connected thereto, however, do not interfere with the usual operation of screwing the base into the socket, neither do they interfere with the unscrewing thereof after the lock is released as described below.

The construction of the parts is such that access may be had to the locking bolt to release the same from the shoulder by an authorized person reaching through the groove 17 from adjacent the lamp bulb. By this fact, a socket fitted into a wall or in any other place where access could not be had to the locking device from the side of the socket may be fitted with my locking devices and operated satisfactorily. In Fig. 6 I show a preferred form of unlocking key, the same comprising a finger piece 22, a shank 23, and a tongue 24. This key may be made of any suitable material, but preferably of a good quality of spring steel for strength and elasticity. The tongue and shank are preferably comparatively slender and are adapted to be projected along the groove 17 substantially parallel to the axis of the base 11 into engagement with the

bolt 20. The bolt 20 is of peculiar construction, being provided with an undercut notch 25 which extends across throughout the full width thereof. The purpose of this undercut is to prevent the lock from being tampered with by any one using a key of any form except that authorized or required for the purpose of unlocking this device. For instance, considering the end 23′ of the shank 23 as the end or point of the key, such end, without the tongue 24, would be sure to be received in said undercut. Such key, therefore, would have no effect upon the lock tending to force it radially or inwardly toward the axis of the base and out of engagement with the shoulder 16. I provide, consequently, the tongue 24 which, as shown in Fig. 6, is considerably narrower than the shank 23, and this tongue rides up over the outer surface of the locking bolt in and through a notch 26 and guiding the end 23′ of the shank over the points 27 on either side of said notch 26. The point 24′ of the tongue is bent outwardly slightly, as indicated in Fig. 5, directing said tongue to the notch 26. The tongue 24, however, is sufficiently flexible to prevent the breakage of the tongue while the key is being pushed into place. By virtue of the strength as well as the elasticity of the key, the point 23′ of the shank proper will reach and coöperate with the points 27 of the bolt, causing the same to be depressed, as shown in Fig. 5, inwardly from the shoulder 16. When the key has been forced into this position, a slight outward turn of the lamp will suffice for the locking bolt to clear the shoulder 16 when the key should be withdrawn. The lamp may then be unscrewed from the socket in the usual way.

The side of the notch 15 opposite the shoulder 16 may be flattened or beveled as indicated at 28, if desired, so that the base may be screwed farther into the socket than would be permitted by said notch if a shoulder were formed on each side thereof. In some instances it is desirable to permit a certain amount of unscrewing of the lamp for the purpose of extinguishing the light when the socket is not provided with a switch. By arranging the notch and shoulder, therefore, at a certain distance from the end of the path of the locking bolt, such partial unscrewing may be provided for, but whether this be carried out or not the shoulder 16, wherever it may be arranged, will prevent the removal of the base and lamp from the socket except by means of a key such as above described.

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

1. In a device of the character set forth, the combination of a socket member having a contact shell with an interrupted thread on the interior and a shoulder adjacent such interruption, a lamp base having a longitudinal groove extending from adjacent the bulb inwardly toward the point, a locking bolt operating within said groove and cooperating with said shoulder to prevent the unscrewing of the base from the socket, a spring holding the bolt normally in locking position, and means adapted to be forced along said groove from adjacent the bulb to unlock the bolt, substantially as set forth.

2. In a device of the character set forth, the combination of an electric lamp socket having a contact shell with an internal shoulder, a lamp base coöperating in said socket, a bolt carried by said base and normally projecting therefrom in locking position, said bolt being provided with an undercut notch extending across the same, and a key projectable between the edge of the socket and the base for unseating the lock, said key being provided with means to cause it to escape said undercut notch.

3. In a device of the character set forth, the combination with a socket and a coöperating lamp base, of locking means including a spring pressed bolt carried by one of these members and adapted to coöperate with the other, the bolt-carrying member having a groove leading to the bolt parallel to the axis of the member, and a key slidable along said groove between said base and the edge of the socket to release said bolt, said key having a tongue coacting with the bolt to move the same radially of the bolt-carrying member, substantially as set forth.

4. In a device of the character set forth, the combination with a socket member provided with a contact sleeve and a lamp base coöperating therewith, of locking means serving to prevent the unscrewing of the base from the socket, said locking means comprising a shoulder formed on one of said members and a spring pressed locking bolt carried by the other of said members, said locking bolt having an undercut notch, and a key projectable between the base and the edge of said contact sleeve for depressing the bolt out of locking engagement with the shoulder, said key being provided with a tongue serving to cause the key to escape the undercut notch.

5. In a device of the character set forth, the combination of a socket member provided with a threaded contact sleeve, an externally threaded lamp base, locking means to prevent the unauthorized unscrewing of the base from the socket, said locking means including a bolt projectable between adjacent threads of one of the members into interlocking engagement with a shoulder formed in a corresponding thread of the other member, said bolt having a transverse undercut notch and an external narrow

longitudinal notch, and a key serving to depress the locking bolt out of engagement with said shoulder, said key including a narrow tongue serving to coöperate with said external notch and thereby guide the key out of engagement with said undercut notch, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CONRAD BLASS.

Witnesses:
GEO. L. BEELER,
PHILIP D. ROLLHAUS.