THEFTPROOF ELECTRIC LIGHT BULB

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To all whom it may concern:

Be it known that we, WILBUR M. REECE, a citizen of the United States, residing at Enterprise, county of Wallowa, and State of Oregon, and CARL E. TOMLINSON, a citizen of the United States, residing at Chehalis, in the county of Lewis and State of Washington, have invented certain new and useful Improvements in Theftproof Electric-Light Bulbs; and we 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.

Our invention relates to improvements in electric light bulbs and more particularly to means for locking the usual threaded shell of the bulb in a socket to prevent theft.

The object of the invention is to provide an extremely simple and inexpensive locking means of the character set forth which can only be released by breaking the bulb, thus placing it in a condition in which it cannot be used, even if stolen from the socket.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, the description being supplemented by the accompanying drawing.

Figures 1 and 2 are side elevations partly in section on lines 1-1 and 2-2 of Fig. 3.

Figure 3 is a horizontal sectional view as indicated by lines 3-3 of Fig. 1, showing the locking means in operative position.

Figure 4 is a duplicate of Fig. 3 with the exception that it illustrates the locking means released.

Figure 5 is a detail sectional view showing a slightly different form of construction.

Figure 6 is a perspective view of the detent releasing stem and its handle and cam.

In the form of construction selected for illustration in the present application, we make use of an electric light bulb 1 having the usual threaded shell 2 at one end for reception in the well known socket 4. A sheet of fish skin paper or the like 5 extends across the shell 2 to separate the bulb anchoring cement 6 from the contact-carrying insulating end 7 of the shell 2, and in the space thus provided is a locking device. This locking device is preferably in the form of a spring arm 8 soldered or otherwise secured at one end to the shell 2, while its other end is formed with a pointed detent 10 passing outwardly through an opening 11 in the shell, said detent being beveled to a point as seen in Fig. 5, so that it will not interfere with threading of the shell into the socket 4, but will bite into the latter and prevent unthreading of said shell, until the arm 8 is forced inwardly to the position shown in Fig. 4.

For releasing the arm 8 and detent 10, we have provided a stem 12 parallel with the axis of the shell, this stem being provided on one end with a cam 13 contacting with the outer side of the arm 8 and operative to force said arm inwardly to the position shown in Fig. 4 when the stem 12 is turned to the proper extent. The other end of the stem 12 is provided with an appropriate operating handle 14 and in the preferred form of construction, the cam and handle are both formed by bending the ends of the stem 12 substantially upon themselves, said stem being formed of a length of suitable wire, as seen most clearly in Fig. 6.

To rotatably carry the stem 12, we prefer to provide a metal tube 15 soldered or otherwise secured to the inner side of the shell 2 and in order that air shall not enter the bulb around the stem, we provide said bulb with an internal seal 16 in the form of a tube which may be integral with the contracted end of the bulb and with the side wall thereof as illustrated in Figs. 1 and 2, or may also be integrally joined to the filament support 17 as depicted in Fig. 5. In either case, breakage of the bulb is necessary to permit rotation of the stem 12 and release of the detent 10 and hence theft of the bulb is prevented.

In assembling the device, the detent 8 is soldered or otherwise secured in the shell 2, above the insulator 7, the tube 15 is then soldered or otherwise secured to the inner side of the shell, the partition 5 is then inserted, and the bulb is then downwardly inserted into the shell, with the seal 16 passing over the tube 15 and handle 14, and said bulb is cemented in place, the current-conducting connections being established in the usual manner.

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the details disclosed, they may be followed if desired, but within the scope of the invention as claimed, numerous minor changes may be made.

5 We claim:

1. An electric light bulb having the usual threaded shell, a locking device within said shell having a socket-engaging detent extending outwardly therethrough to hold said shell against unthreading from the socket, a releasing key for said locking device confined within said bulb and accessible only by breaking the same, and a seal around said releasing key preventing entrance of air around the same.

2. An electric light bulb having the usual threaded shell, a locking device in said shell having a socket-engaging detent extending outwardly therethrough to hold said shell against unthreading from the socket, a stem extending into the bulb and having one end operatively associated with said locking device for releasing said detent when the stem is turned, the other end of said stem having a handle, confined in the bulb, and a seal around said stem and handle preventing entrance of air around the same.

3. An electric light bulb having the usual threaded shell, a locking device in said shell having a socket-engaging detent extending outwardly therethrough to hold said shell against unthreading from the socket, a stem having a handle confined in the bulb, and a seal around said stem and handle preventing entrance of air around the same.

4. A structure as specified in claim 3, said cam and handle being formed by bending the ends of said stem substantially upon themselves.

5. An electric light bulb having the usual threaded shell, a locking device within said shell having a socket-engaging detent extending outwardly therethrough to hold said shell against unthreading from the socket, an open-ended tube secured to the inner side of said shell and extending into the bulb, a stem passing through said tube and operatively associated at one end with said locking device, the other end of said stem having an operating handle, and a seal around said tube and handle preventing entrance of air around the same.

In testimony whereof we have hereunto affixed our signatures.

WILBUR M. REECE.
CARL E. TOMLINSON.