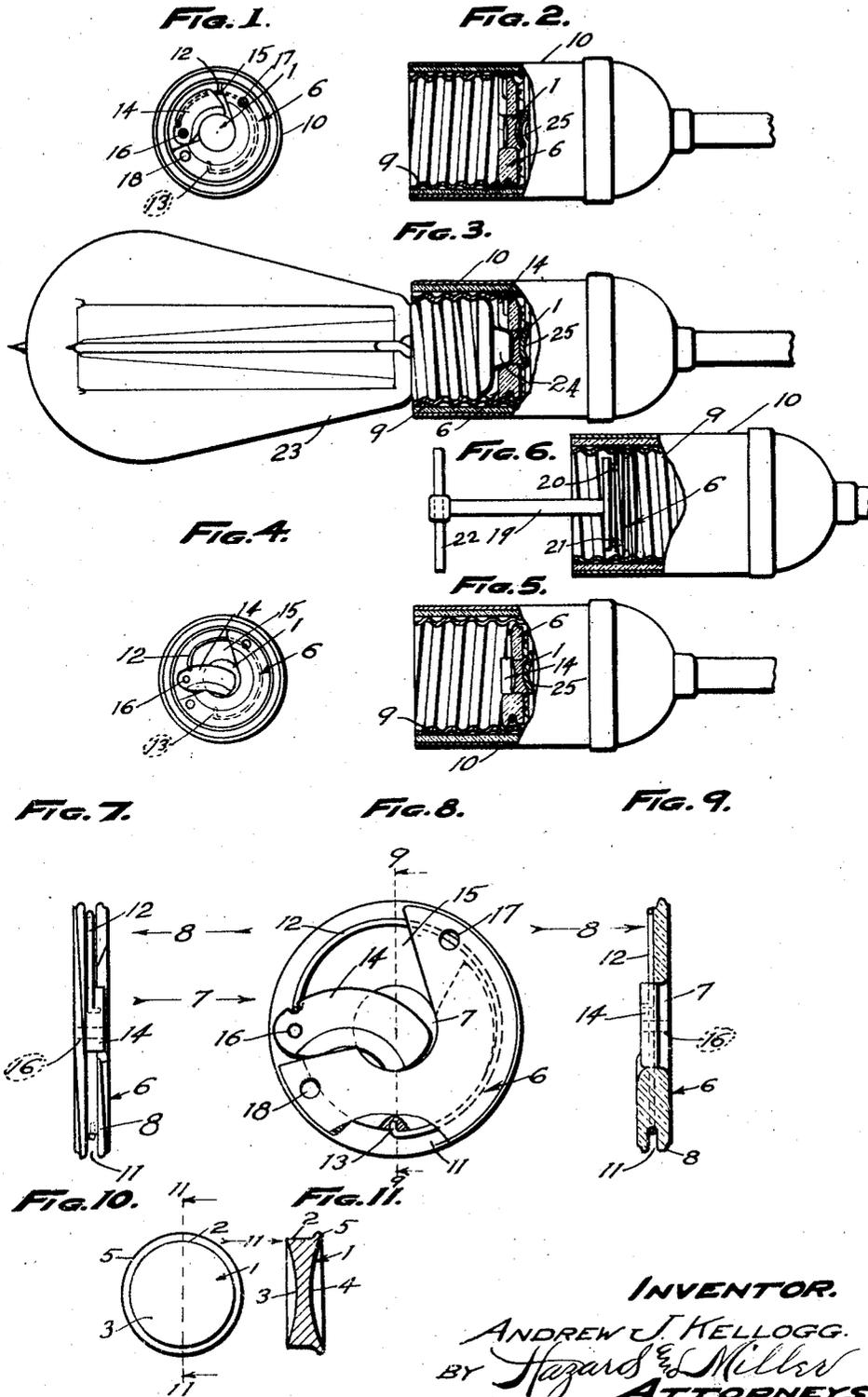


A. J. KELLOGG.
 AUTOMATIC LOCKOUT FOR LAMP SOCKETS.
 APPLICATION FILED JULY 7, 1919.

1,345,091.

Patented June 29, 1920.



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AUTOMATIC LOCKOUT FOR LAMP-SOCKETS.

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To all whom it may concern:

Be it known that I, ANDREW J. KELLOGG, a citizen of the United States, residing at Acton, in the county of Los Angeles and State of California, have invented new and useful Improvements in Automatic Lockouts for Lamp-Sockets; of which the following is a specification.

My object is to make an automatic lock out for lamp sockets, and my invention consists of the novel features herein shown, described and claimed.

One of the purposes of my automatic lock out for lamp sockets and the like is to prevent unauthorized persons from removing the lamp and connecting flat irons, coffee pots, toasters, heaters and the like to the lamp socket, and the function of the lock out is that when the lamp is removed an insulation is brought into place over the contact so that the plugs cannot be reinserted and electrically connected. The result is that when a person removes a lamp to connect a utensil, the utensil cannot be electrically connected and the lamp cannot be replaced except with a proper tool and by an expert.

Figure 1 is a bottom plan view of an automatic lock out for lamp sockets and the like embodying the principles of my invention.

Fig. 2 is a diametrical sectional detail of a lamp socket with the automatic lock out in place and ready for the insertion of a lamp.

Fig. 3 is a view analogous to Fig. 2 and showing a lamp in place and electrically connected.

Fig. 4 is a view analogous to Fig. 1 and showing the parts in the lock out position, Fig. 1 showing the parts in normal position for connecting the lamp and Fig. 4 showing the parts in the lock out position so that no lamp or plug can be electrically connected.

Fig. 5 is a view analogous to Fig. 3 and showing the parts in position as they would be after the lamp is removed.

Fig. 6 shows the operation of removing the automatic lock out to restore to its normal position for the reinsertion of a lamp.

Fig. 7 is an edge view of the automatic lock out shown in Figs. 1 and 4 and as seen looking in the direction indicated by the arrow 7 in Fig. 8.

Fig. 8 is an enlarged plan view in detail analogous to Fig. 4 and looking in the direction indicated by the arrows 8 in Figs. 7 and 9.

Fig. 9 is a diametrical cross section on the line 9—9 of Fig. 8.

Fig. 10 is an enlarged plan of the electric plug or connector carried by the automatic lock out.

Fig. 11 is a diametrical cross section on the line 11—11 of Fig. 10.

The connector 1 is a circular button made of brass or other good conducting material and has a flat periphery 2, a concave lower face 3, a concave upper face 4, and a stop rim 5 extending outwardly from the periphery 2 at the upper side 4.

The connector 1 is mounted in a frame 6. The frame 6 is made of hard fiber or the like to insulate or electrically isolate the connector. The frame 6 has a central opening 7 in which the periphery 2 of the connector 1 fits slidingly, the rim 5 serving to hold the connector 1 from sliding downwardly out of the frame. The frame 6 is flat when seen edgewise, as in Fig. 7, and circular when seen sidewise, as in Fig. 8.

The frame 6 is thick enough to carry about two turns of a thread 8, said thread fitting the thread 9 of the lamp socket 10 so that the frame may be screwed into the lamp socket and screwed out. An annular groove 11 is formed in the periphery of the frame 6. The groove 11 mutilates the thread 8 but does not destroy its action. A spring wire 12 is placed in the groove 11 and has an end 13 bent inwardly and driven into the body of the frame at the bottom of the groove 11, and the other end of the spring is connected to the pivot cut out plate 14. The pivot cut out plate 14 is mounted in a recess 15 formed from one side of the frame 6 and extending through slightly more than a quarter of the area of the side face of the frame and substantially half the thickness of the frame. This recess also mutilates the thread 8 without destroying its action.

The connector 1 normally is centrally located in the frame on a plane parallel with its axis, and the cut out plate 14 is connected at its outer end by a pivot pin 16, and the free end of the plate 14 bears against the periphery 2 of the connector 1 thereby resisting the tension of the spring 12 and holding the parts in normal position.

Pinholes 17 and 18 are formed from the lower face of the frame 6 diametrically opposite each other for the insertion of a spanner key 19 in screwing the frame in and out.

The automatic lock outs are prepared

with the parts in their normal positions as shown in Fig. 1, and when it is desired to insert a lock out into a lamp socket the spanner key 19 is applied and has pins 20 and 21 fitting in the pin holes 17 and 18 and a handle 22 for manipulation.

The automatic lockout is inserted into the lamp socket with the stop rim 5 engaging the inner side of the frame 6 and the pivoted cut-out plate 14 on the outer side of said frame; and when the cut-out is screwed up into the socket 10 the inner face of the frame 6 will stop at the inner end of the thread 9, and when the lamp 23 is screwed into the socket the lamp contact 24 will bear against the outer face of the connector 1 and press the connector inwardly relative to said frame, thereby moving the connector laterally out of the place of the cut-out plate 14 and pressing the connector 1 against the contact 25 thereby electrically connecting the lamp to the socket.

During this time the cut out plates 14 bear against the contacts 24, but as soon as the lamps are unscrewed even a turn or so or removed from the sockets the cut out plates 14 are released, and the tensions of the wires 12 will swing the plates inwardly in front of the connectors 1, and the lamps cannot be replaced and electrically connected and plugs cannot be electrically connected to the sockets for the operation of flat irons and the like. The lamp sockets are out of commission until the lock outs are removed and restored to their normal positions.

Thus I have produced an automatic lock out for lamp sockets and the like comprising a frame adapted to be screwed into the lamp sockets ahead of the lamp and having a connector normally holding an insulation plate and adapted to be displaced by screwing the lamp in so as to release the insulation plate when the lamp is screwed out, and means for moving the insulation plate over the connector to prevent a lamp or plug from being screwed in to connecting position.

Various changes may be made without departing from the spirit of my invention as claimed.

I claim:

1. An apertured insulation frame adapted to be screwed into a lamp socket, carrying a center contact in said aperture and displaceable in the direction of movement of the entering lamp, a pivoted insulating plate carried by the frame biased to move over the center contact aperture and normally held from such position by engagement with the center contact.

2. An automatic lock out for lamp sockets comprising the combination with a lamp socket and a lamp, of means screwed into the lamp socket including an insulating element mounted on said means to swing over the socket contact when the lamp is removed.

In testimony whereof I have signed my name to this specification.

ANDREW J. KELLOGG.