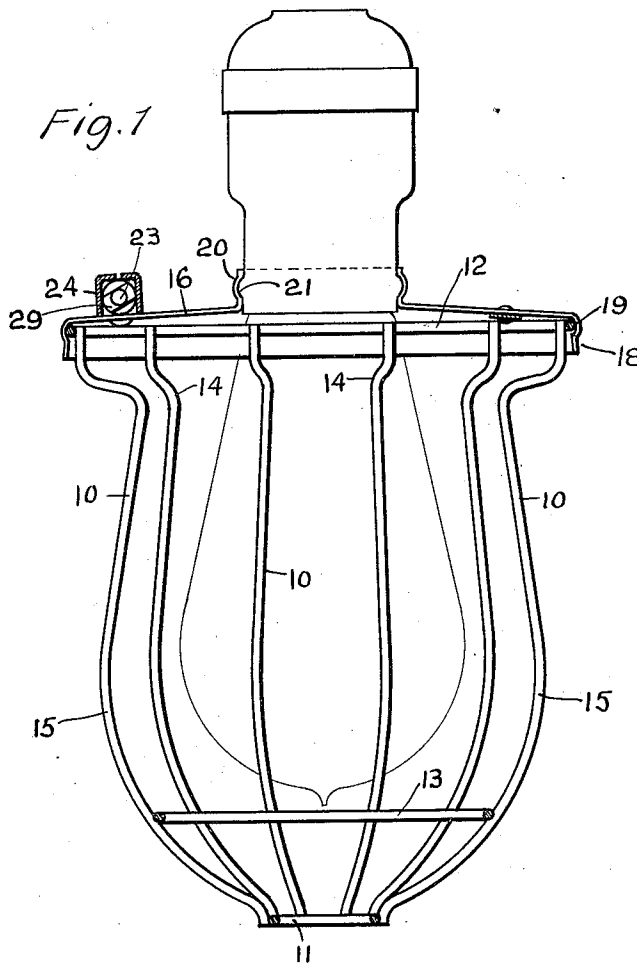


H. HUBBELL.
LOCK GUARD FOR INCANDESCENT LAMPS.
APPLICATION FILED NOV. 29, 1910.

1,022,739.

Patented Apr. 9, 1912.

2 SHEETS—SHEET 1.



WITNESSES:

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Fig. 2

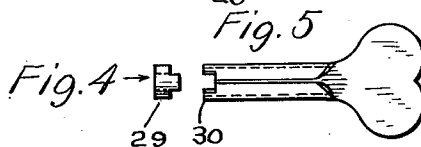
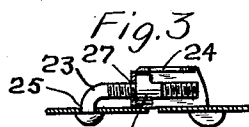
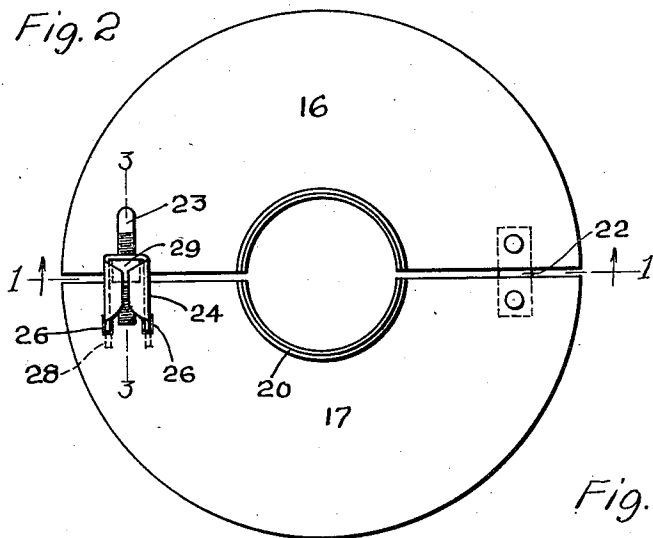
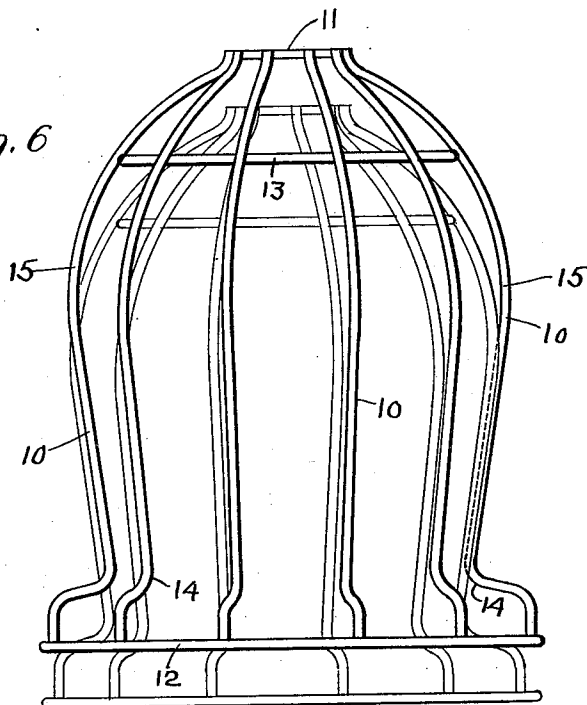


Fig. 6



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UNITED STATES PATENT OFFICE.

HARVEY HUBBELL, OF BRIDGEPORT, CONNECTICUT.

LOCK-GUARD FOR INCANDESCENT LAMPS.

1,022,739.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed November 29, 1910. Serial No. 594,691.

To all whom it may concern:

Be it known that I, HARVEY HUBBELL, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented an Improvement in Lock-Guards for Incandescent Lamps, of which the following is a specification.

This invention relates to guards for incandescent lamps of the closed bottom type, so called, that is guards constructed for attachment to a socket when the lamp is in place and usually provided with locking means so that the lamp cannot be removed without removing the socket and the socket cannot be removed without using a key.

It is one of the objects of the invention to produce a guard of this type which shall be simple and inexpensive to make, easy to attach and remove, neat and attractive in appearance and which shall be so designed and constructed as to nest closely together, so that from six to eight guards may be packed in the space heretofore required for packing two guards.

A further object of the invention is to provide novel and inexpensive means for locking the guard and with it the lamp to a socket.

With these and other objects in view the invention consists in certain constructions and in certain parts improvements and combinations which will be hereinafter described and then specifically pointed out in the claims hereunto appended.

In the accompanying drawings forming a part of this specification, Fig. 1 is an elevation showing my novel guard in position on a lamp socket, one member of the locking plate being removed; Fig. 2 a plan view of the guard detached; Fig. 3 a detail sectional view illustrating the lock; Fig. 4 a view of the nut detached; Fig. 5 a view of the key; and Fig. 6 is an elevation illustrating the manner in which the guards nest together.

The guard is made wholly from wire, all sheet metal parts being avoided. The parts or elements may be secured together in any ordinary or preferred manner but are preferably secured together by electric welding so that the guard is made integral, the use of solder being avoided.

My novel guard comprises longitudinal strips or elements indicated by 10, a bottom ring indicated by 11, a top ring indicated by 12 and an intermediate ring indicated by 13. The bottom ring is made small enough to

prevent the removal of or any interference with the lamp. The body is required to be of suitable shape and size to inclose the lamp and guard it against breakage. I preferably close the longitudinal elements inward, as at 14, above the swell of the lamp bulb. Above the inward closings the longitudinal elements are turned outwardly at approximately right angles and then inwardly to form approximately parallel ends which are attached to the top ring. The longitudinal strips and the several rings are united by cross connection, without the closing of one wire about the other, whereby the torsional rigidity of the construction is preserved. The top ring is made of slightly greater diameter than the swell of the body of the guard (that is the outward swell of the longitudinal elements), which is specifically indicated by 15. This is in order to permit the swells of the bodies to be passed freely through the top rings in nesting for packing or storage as indicated in Fig. 6. The intermediate ring is preferably placed within the longitudinal elements and of smaller diameter than the inward closing of the elements at the top, and is placed at sufficient distance below the swell (see Figs. 1 and 6) to permit the swell of the longitudinal elements of the guards to pass within each other, as clearly shown. In the nested position (if inverted as in Fig. 6) the top rings of the guards rest upon the outwardly turned portions of the longitudinal elements below the inward closings.

The locking plate comprises two semi-circular parts which are indicated respectively by 16 and 17. At the outer periphery of the parts is an angle flange 18 having a circular groove 19 which is adapted to receive the top ring of the guard. At the inner periphery of the parts is an angle flange 20 shown as extending in the opposite direction from the outer angle flange and provided with a groove 21 which receives the rib on a lamp socket. The parts of the locking plate are permanently but loosely connected together on one side by means of a cross piece 22 which is pivoted to both parts but leaves them slightly separated, as shown. Upon the other side the parts are provided respectively with locking members 23 and 24. These locking members are made readily attachable and detachable and require simply a hole, indicated by 25, in one locking member and two slots, indicated by 26, in the other member. Locking member

23 is simply a bolt with the head bent at an angle, the bolt being passed through hole 25 and the head lying on the under side of the locking plate. Locking member 24 is simply a housing struck up and formed from sheet metal and provided at its forward end with a hole 27 through which member 23 is passed and at its rear end with attaching lugs 28 which are shaped to pass through the slots when the housing is held vertically and to engage the under side of the plate and retain the housing in place when it is allowed to drop to its normal position.

29 denotes a nut which engages the bolt within the housing and is provided with suitable lugs or recesses for engagement by a key 30, which is also shown as struck up and formed from sheet metal. It will be seen that the attachment of the locking members is a very simple matter. Member 23 is passed upward through hole 25 and through hole 27 in member 24 and then the nut is turned on to member 23. When the nut is turned backward the parts of the locking plate will separate sufficiently to permit inner angle flange 20 to pass over the rib on a lamp socket and the bottom ring of the guard to pass into groove 19 in the outer angle flange. When the parts are in this position the guard is locked to the locking plate and the locking plate is locked to the socket by turning the nut up tightly against the wall of locking member 24, as clearly shown in Fig. 3. To remove the guard from the locking plate, it is simply necessary to turn the nut backward suffi-

ciently to permit the parts of the locking plate to separate and allow the top ring of the guard to pass out from groove 19. In this position of the parts the locking plate may be removed from the socket if required.

Having thus described my invention I claim:

1. In a device of the character described, the combination with a guard, of a two-part locking plate having a flange adapted to engage the guard, a cross piece pivoted to the parts of the plate, a threaded locking member detachably connected to one part of the plate, a housing detachably connected to the other part of the plate and having a hole to receive the threaded locking member and a key controlled nut which engages the threaded locking member within the housing.

2. In a device of the character described, the combination with a guard, of a two-part locking plate adapted to engage the guard, one of the parts being provided with a hole and the other with slots, a threaded locking member which is bent at an angle and passed through the hole, a housing having lugs adapted to engage the slots in the other part and a hole to receive the threaded locking member and a key-controlled nut which engages the threaded locking member within the housing.

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

HARVEY HUBBELL.

Witnesses:

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