A. F. W. MEYER. LOCKING ATTACHMENT FOR INCANDESCENT ELECTRIC LAMPS. APPLICATION FILED MAY 11, 1908.

991,872. Patented May 9, 1911. Witnesson 39 Inventor Albert F.W. Neyer.
By Gorée Bain 45 mays

UNITED STATES PATENT OFFICE.

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LOCKING ATTACHMENT FOR INCANDESCENT ELECTRIC LAMPS.

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Specification of Letters Patent.

Patented May 9, 1911.

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To all whom it may concern:

Be it known that I, ALBERT F. W. MEYER, a citizen of the United States, residing at Chicago, in the county of Cook and State of 5 Illinois, have invented certain new and useful Improvements in Locking Attachments for Incandescent Electric Lamps, of which the following is a specification.

My invention relates to locking attach-10 ments for electric incandescent lamps, and has for its salient object to provide a locking device for attachment to an electric lamp socket applicable thereto in combination with means for preventing removal of the 15 lamp from its socket, or for the connection of other parts such as shades and the like with the socket.

In the drawings I have shown several embodiments of my invention, and in said 20 drawings; Figure 1 is a side elevation of a locking lamp guard in closed position; Fig. 2 is a similar view of the guard in open position; Figs. 3 and 4 are detail views in central section and an end elevation of the 25 lock, and; Fig. 5 is a detail of the parts thereof in disassociated relation; Fig. 6 is an enlarged view illustrating the construction of the guard frame, and; Fig. 7 is a sectional detail on line 7—7 of Fig. 6.

Throughout the several views like numerals of reference refer always to like parts.

In the embodiment of my invention shown I provide a split clamp, adapted to be opened to permit the insertion of a part to be 35 clamped and then closed to grip upon or about said part to be clamped, such clamp carrying on opposite sides of the split or juncture interengaging parts of a lock, said lock consisting of a bolt or screw perma-40 nently mounted on one of the ends of the split clamp, and a screw receiving member on the opposite end of the split clamp, said screw or bolt having a head shaped to require the application thereto of a socket 45 key, and being surrounded by a protecting member, which necessitates the employment of a key of particular design for the operation of the lock.

In the particular application of my invention, I provide a socket engaging clamp 50 15 made up of two similar sections 16, 167, each of said elements being practically semicircular, each provided upon each end with one member of a locking device, generally indicated at 17. Each such lock comprises 55 a male member carried by one of the split sections, and a female member carried by the other, the preferred construction which I employ being that shown in Figs. 3, 4, and 5.

In the particular construction shown, each end of each clamp section is shaped to provide a round plate, as indicated at 18 and 18', disposed on a radial line so that when the two clamping sections are drawn to- 65 gether the plates lie face to face, one of the coacting plates being provided with a screw receiving part, such as a drawn socket 19 the interior of which is screw threaded and the opposite plate carrying the positive mem- 70 ber of the lock, which consists of a bolt 20 screw-threaded at one end, provided with a flange 21 between its ends and at its other end formed into a head 22, preferably of triangular shape to receive a socketed key. 75

The screw 20 is inserted through a hole 23 in the plate 18, so that the flange bears upon the surface of said plate, and the cap member 24 constituting a retaining device for the bolt, and a shield or guard for the head 80 thereof is applied to the plate 18. As best shown in Fig. 4 such part 24 consists of a circular base 25, provided with projecting studs 26 bent down, as shown in Fig. 3, over the edges of the plate 18, to secure the parts 85 together, said base 25 being drawn to provide a recess 27 to receive the flange of the locking bolt and to provide further a rim or guard 28 surrounding and projecting beyond the head 22 of the locking bolt. Thus to 90 operate the lock a key must be provided which can pass into the opening of the guard 28 and engage the triangular head 22 of the bolt, the bolt being freely rotatable in the chamber provided by the plate 18 and the 95 recess 27 in the cap 24.

In the locking lamp guard, as shown in Fig. 1, the clamp 15 is provided through its circular extent with a bead 29 for engaging a part of a lamp socket and also 5 giving strength to the clamp construction, and is further provided at its lower edge with an expanded petticoat 30, forming part of the guard frame. The bead 29 in Figs. 1 and $\bar{2}$ is outwardly curved to coact with 10 the bead usually provided upon a metallic socket for an electric lamp, but where the guard is intended to coact with a socket provided with an annular recess, as is common in porcelain sockets, the bead is bent 15 inwardly as shown at 29' in Fig. 8.

The cage or frame of the guard is constructed of vertically extending wires secured at the bottom to a common retainer and at their top to the petticoat 30 of the 20 clamp, such wires 32 being all bent or bowed to convenient shape to receive the lamp bulb, and at their lower ends converging toward a common center on radial lines, and each sharply bent downward so as to form a de-25 pending tip, as shown at 33 in Fig. 7. The retainer for the bottom ends of the wire is preferably constructed of a plate 34, having therein an annular groove or channel 35 for the reception of all of the tips 33 of the 30 wires 32, the plate 34 having at its rim a number of separated fingers 36 between which the wires enter the groove or channel 35. When the wires are all assembled in the part 34 a plate 37 is laid over the radial 35 wires and secured in position by bending the fingers 36 down over the edge thereof, as best indicated in Fig. 6. By this arrangement the wires 32 are all firmly connected together and to the retainer, but yet have a 40 certain freedom of movement which enables them to pivot to a degree to permit the lamp guard to open, as shown in Fig. 2, on the line of separation of the two halves of the clamp, the different wires being displaced in 45 the retainer to such degree as is necessary to permit the hinging movement. If desired a hook, 39, may be attached to the retainer, so that the lamp guard may be hung up.

For strengthening the cage or frame con-50 struction, I provide two semi-circular frame pieces 40 preferably in the form of a flat ring-section, engaging all of the wires 32 at about the point where the frame or cage is of greatest diameter. To this end all of 55 the wires 32 constituting each section of the lamp guard pass through convenient holes in the corresponding ring section 40, and are kinked as at 32' at the point of juncture with such ring section, so that the 60 strengthening members 40 may not escape from the positions in which they are placed.

In the commercial manufacture of such a lamp guard the entire guard is preferably tinned after the parts are assembled, so

that the parts on which no particular strain 65 of movements are imposed are united by the tinning, which, however, does not sufficiently secure together the parts of the lock or the parts of the retainer structure to prevent either the movement of the locking bolt or 70 the hinging movements of the guard sections.

In applying the locking lamp guard in use, it is opened as shown in Fig. 2, placed around the lamp, as indicated in dotted 75 lines in Fig. 1, the parts of each lock being brought together; and then each lock is screwed up tight, so that the clamp 15 closely engages the socket and may not be detached therefrom without unscrewing the locking 80 members and the lamp obviously may not be removed on account of the presence of the guard.

It will be understood that the specific embodiment of my invention herein given is 85 susceptible of change to meet varying conditions of practice, and that I do not therefore desire to be understood as limiting the invention to such specific showing herein given for purposes of clearness of disclosure 90 further than is defined in the appended claims.

What I claim and desire to secure by Letters Patent of the United States, is:

1. In a lamp locking device, a socket en- 95 gaging clamp and locking means therefor comprising duplicate plates, an interiorly threaded screw-receiving socket upon one of said plates, opening toward the opposing plate, a cap secured to said opposing plate, 100 said cap being of shape to provide a recess between itself and the coacting plate, a bolt, screw-threaded at one end and formed for reception of a suitable key at the other, and a flange on the screw-bolt between said 105 screw-threaded and key portions thereof for engagement in the recess between the plate and cap.

2. In a lamp-locking device, a socket-engaging clamp and locking means therefor 110 comprising in combination plates 18'—18' to be locked together, a locking screw 20 provided with a head 22, and flange 21, a screw head-guard 24, overlying the flange and head, secured to one of said plates to 115 retain the screw in place and permit rotation thereof, and a screw-threaded shankguard 19, on the other plate for engagement with said screw.

3. In a lamp-locking device, a socket en- 120 gaging clamp and locking means therefor comprising coacting duplicate plates, an interiorly threaded screw-receiving socket upon one said plate, opening toward the opposing plate, a cap secured to said oppos- 125 ing plate, said cap being of shape to provide a recess between itself and the coacting plate, a bolt screw threaded at one end and

angulated at the other, a flange on the bolt between said screw threaded and angulated portions thereof for engagement in the recess between the plate and cap, and a rim on the cap for surrounding the angulated portion of the bolt, substantially as described.

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In testimony whereof I hereunto set my hand in the presence of two witnesses.

ALBERT F. W. MEYER.

In the presence of— Forée Bain, Mary F. Allen.