No. 726,832. PATENTED APR. 28, 1903.

C. F. RITCHEL.

LOCKING DEVICE.

APPLICATION FILED OCT. 13, 1902.

NO MODEL.

Fig. 1.

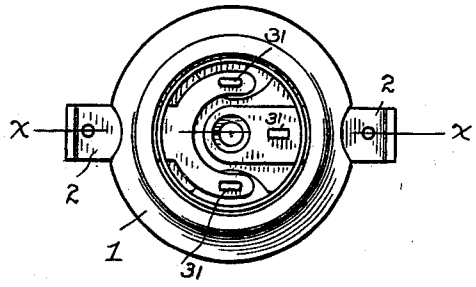


Fig. 2.

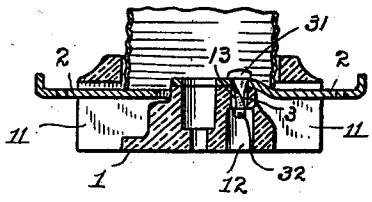


Fig. 3.

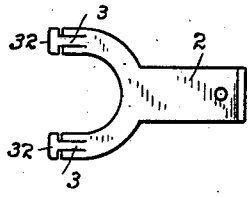


Fig. 4.

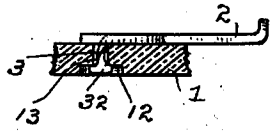


Fig. 5.

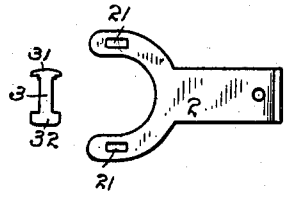


Fig. 6.

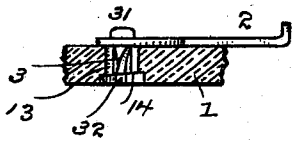


Fig. 7.

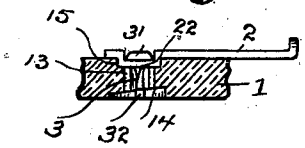
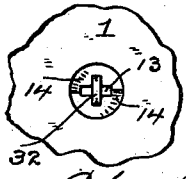


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES F. RITCHEL, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO FRED J. RITCHEL AND CHARLES F. RITCHEL, JR.

LOCKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 726,832, dated April 28, 1903.

Application filed October 13, 1902. Serial No. 127,122. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. RITCHEL, residing at Bridgeport, Connecticut, have invented a new and useful Improvement in Locking Devices, of which the following is a specification.

My invention relates to locking devices, and in particular to means for securing the metal conducting parts to the porcelain or other insulating rosettes, sockets, switch-bodies, or other fixtures used in electric wiring. It is intended to provide a simple and effective means to this end.

In the accompanying drawings, Figure 1 is a plan view of a porcelain socket and metal connections secured together by my device. Fig. 2 is a vertical section through the lines *x x*, Fig. 1. Figs. 3 and 4 show in plan and section a modification. Fig. 5 shows detached parts of the device shown in Fig. 1. Figs. 6 and 7 are further modifications. Fig. 8 is a bottom plan view of the form shown in Fig. 7.

Referring to Figs. 1, 2, and 5, the block 1 may be taken as a type of any form of insulating-block. As shown, it is recessed at 11 to receive conducting-brasses 2 2. It is also recessed at 12 and pierced at 13, the hole 13 being of oblong cross-section, as shown in Fig. 2. The brasses 2 are pierced with oblong apertures 21, adapted to engage with the heads 31 of metal studs 3. At the other end of the stud 3 is a foot 32.

The drawings clearly show the mode of assembling the parts and the operation of my device. The head 31 of the stud 3 being engaged with the metal piece 2 and the stud passed down through the hole 13, a quarter-turn of the shank of the stud engages the foot 32 with the porcelain and firmly secures to it the metal conductors.

A modification (shown in Figs. 3 and 4) consists in blanking or forming the brass 2 and the studs 3 in an integral piece. In this case the brass itself may be said to form the "head" of the stud. It is obvious that the stud portions are bent down and when *in situ* are twisted, as above described, to engage the foot 32 below the lower end of the hole 13.

In Figs. 6, 7, and 8 I have shown the recess 12, into which the aperture 13 opens, as having its end formed into two oppositely-inclined planes 14 14. It is obvious that in this case the twisting of the stud-shank causes the foot 32 to ride on these planes, so as to hold the portion 2 still more firmly to the block 1. In Fig. 7 the recess 15 in the block at the upper end of the aperture 13 and the corresponding recess 22 in the metal part 2 together serve to keep the head 31 of the stud flush with or below the upper face of the portion 2.

Heretofore it has been customary to connect the insulating and the metallic parts of electric fixtures together by screws engaging in threads in the metal portions. These metal pieces should for economical reasons be made as light as possible. Hence the few threads of the nut are easily overdrawn in assembling, and very unsatisfactory results are obtained. My device assures a certain and rigid connection, besides lessening the cost of making the parts and of assembling them.

What I claim is—

1. An electric fixture consisting of an insulating and a conducting portion and a stud engaged as against longitudinal or rotary motion with one of said portions and having its shank twisted so that it engages with the other of said portions whereby they are firmly secured together.

2. An electric fixture consisting of an insulating and a conducting portion one of which is pierced by an aperture of oblong cross-section and a stud passing through said aperture, engaged as against longitudinal or rotary motion with one of said portions and having its shank twisted so that it engages with the other of said portions whereby they are firmly secured together.

3. An electric fixture consisting of an insulating and a conducting portion, one of which is pierced by an aperture of oblong cross-section, the face of said portion adjacent to the end of said aperture being formed into oppositely-inclined planes and a stud passing through said aperture and twisted so as to engage its foot with said inclined planes whereby said portions are drawn and firmly held together.

4. In combination an insulating-block pierced by an aperture of oblong cross-section, a metal conducting-piece and a stud adapted to engage as against longitudinal or rotary motion with said conducting-piece, to

pass through said aperture and by the twisting of its shank to engage its foot with said block beneath said aperture.

5. In combination an insulating-block pierced by an aperture of oblong cross-section, the face of said block adjacent to the lower end of said aperture being formed into oppositely-inclined planes, a metal conducting-piece and a stud adapted to engage with said conducting portion, to pass through said aperture and by the twisting of its shank to engage its foot with said inclined plane.

6. In combination an insulating-block pierced by an aperture of oblong cross-section and having a recess in its face surrounding said aperture, a metal conducting-piece having a recess adapted to seat within said recess in said block and a stud adapted to secure together said conducting-piece and said block, the head of said stud being adapted to seat within said recess in said conducting-piece.

7. In combination an insulating-block pierced by an aperture of oblong cross-section, a metal conducting-piece and a stud integral with said conducting-piece adapted to pass through said aperture and by the twisting of its shank to engage its foot with said block beneath said aperture.

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