July 16, 1940. W. R. SCHLAGE 2,207,878

CYLINDER LOCK MOUNTING

Filed Oct. 12, 1938

Fig. 1.

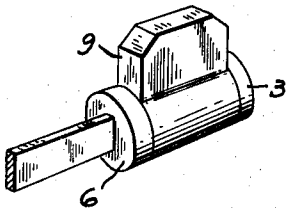


Fig. 2.

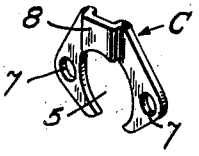


Fig. 3.

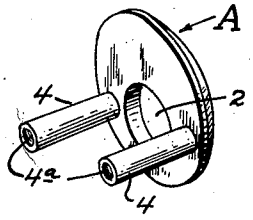


Fig. 4.

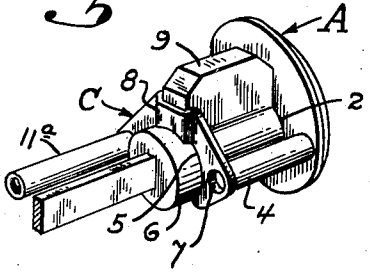


Fig. 5.

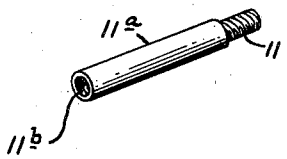
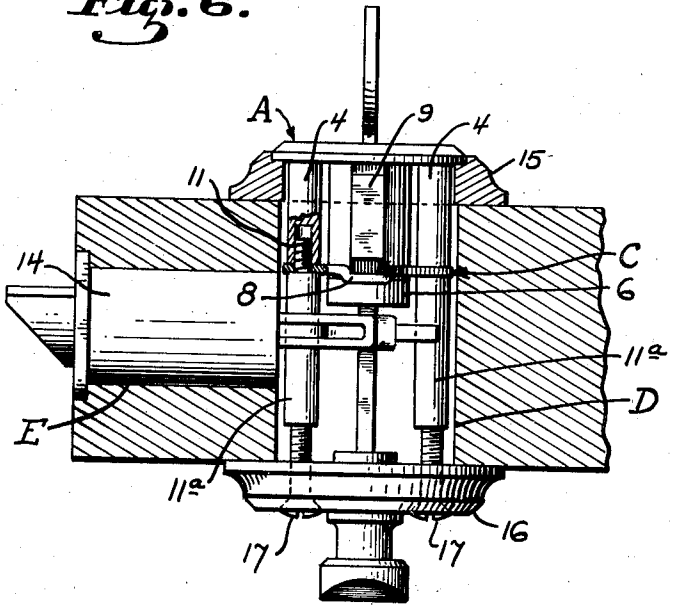


Fig. 6.



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CYLINDER LOCK MOUNTING

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Application October 12, 1938, Serial No. 234,585

3 Claims. (Cl. 70—370)

This invention relates to cylinder locks, and especially to a mounting whereby the cylinder lock is supported and secured.

In the manufacture of pin tumbler cylinders, castings of different size and shape are usually made to fit varying types of locks and installations. For instance, a pin tumbler cylinder may be installed in a door knob, or it may be installed in an auxiliary lock such as a night-latch or the like. In each installation, different conditions are encountered, and a change in shape and size of the casting is accordingly necessary in many installations. The tumbler cylinder should be made readily removable and interchangeable for repairs and also to permit changing of the combination, and the cylinder must be rigidly supported when installed to permit it to be key-actuated.

The object of the present invention is to provide a mounting for cylinder locks of the character described which permits the use of a standardized tumbler cylinder; to provide a mounting which is readily adapted for installation in varying sizes and forms of locks; to provide a mounting which permits ready insertion or removal of the tumbler cylinder; to provide a mounting in which the tumbler cylinder is adapted to be rigidly secured; to provide a mounting which is adapted to receive tumbler cylinders of varying length, such as four, five or more pin tumblers; to provide a mounting which may be readily anchored, connected or secured with relation to a door or the mechanism to be actuated thereby; and, further and more specifically stated, to provide a mounting in the form of a face plate, a pair of posts secured thereto and a clamping plate carried by the posts and engageable with the cylinder lock to clamp and secure it rigidly between the face plate and the clamping plate.

The cylinder lock mounting is shown by way of illustration in the accompanying drawing in which—

Fig. 1 is a perspective view of a standard form of pin tumbler cylinder;

Fig. 2 is a perspective view of the clamping plate;

Fig. 3 is a perspective view of the face plate with the posts secured thereto;

Fig. 4 is a perspective view showing the cylinder lock secured to the face plate by the clamping plate;

Fig. 5 is a perspective view of an extension post; and

Fig. 6 is a horizontal section of a door showing the pin tumbler cylinder and mounting installed and also showing the manner in which it is anchored and connected with relation to a door latch and a latch actuating mechanism.

Referring to the drawing in detail, and particularly to Figs. 1 to 4, A indicates a face plate in which is formed an opening 2 to receive and support the outer or key end 3 of a cylinder lock such as shown in Fig. 1. Secured to the face plate in any suitable manner is a pair of posts 4—4, the outer ends of which are internally threaded as shown at 4a to receive a screw 11, or similar fastening means. The posts are spaced apart and are disposed one on each side of the opening 2 and form a support for a clamping plate generally indicated at C. The plate has an opening 5 formed therein to receive and support the inner end 6 of the cylinder lock. It is also provided with perforations 7—7 to receive the fastening screws 11, and it is further provided with a yolk portion 8 which straddles and engages the portion 9 of the cylinder lock which houses the pin tumblers.

The several parts are assembled as shown in Fig. 4, and when the screws 11 or other fastening means are applied, the plate C will clamp and secure the cylinder lock to the face plate A, the opening 5 in the clamping plate aligning and maintaining the longitudinal axis of the cylinder lock at right angles to the face plate. The mounting disclosed is intended to permit the use of a standardized type of cylinder lock. However, it happens that even though such a lock is employed, the length varies; that is, a pin tumbler type of cylinder lock may employ four pin tumblers and as such will have a certain length, another lock may employ five pin tumblers and be longer, and another lock may employ six tumblers and be still longer.

To take care of this variation in length, it is only necessary to provide interchangeable clamping plates. All of the plates will be identical, but the yoke portion on one plate will be slightly longer than on another to take care of the variation in length of the cylinder locks. Thus, all parts of the mounting such as the face plate, the length of the posts 4, etc., will remain the same regardless of the length of the cylinder lock employed, the only changeable member being the clamping plate employed.

From the foregoing, it should be clear, first, that a mounting constructed as here shown is capable of receiving a standardized type of pin tumbler or cylinder lock such as shown in Fig. 1; secondly, that pin tumbler cylinder locks of

varying lengths may be inserted; and third, that by merely removing the clamping plate C, the cylinder lock may be quickly and easily removed for inspection, repairs, or change, and a new pin tumbler cylinder lock may just as easily be inserted. Thus it is a simple matter to change the combination of a lock provided with a mounting such as here shown.

The present application illustrates one method of connecting the mounted cylinder lock in relation to the latch mechanism of a lock, the type of lock here shown being that disclosed in my former patent entitled "Door latch," issued November 3, 1931, Patent No. 1,829,814. When installing a lock of this character, two holes are drilled in the door, one extending crosswise of the door as indicated at D, and one extending through the edge of the door as shown at E. The latch-bolt mechanism indicated at 14 is inserted through the opening E, while the mounting containing the cylinder lock and the latch actuating mechanism is insertable in the opening D. Face or escutcheon plates may be employed as shown at 15 and 16. Extension posts are also required as shown at 11*a*. These are provided with a screw portion 11 at one end and with an internally threaded portion 11*b* at the opposite end. The threaded portions 11 are screwed into the outer ends of the posts 4 and as such engage and secure the clamping plates C. The outer internally threaded ends 11*b* of the extension posts receive screws 17, and when these are tightened the entire mechanism is rigidly secured within the opening D. The mounting, together with the cylinder lock carried thereby, may be connected with other types of locks, but the illustration of one is thought to suffice.

While these and other features of the present invention have been more or less specifically described and illustrated, I wish it understood that various changes may be resorted to within the scope of the appended claims, and that the materials and finish of the several parts employed may be such as the judgment and experience of the manufacturer may dictate or other conditions may demand.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A cylinder lock mounting comprising a face plate having an opening formed therein to receive one end of a cylinder lock, a pair of posts secured to the plate, one on each side of the cylinder lock, and a clamping plate carried by the posts and engaging the opposite end of the cylinder lock to secure it to the face plate.

2. A cylinder lock mounting comprising a face plate having an opening formed therein to receive one end of a cylinder lock, a pair of posts secured to the plate, one on each side of the cylinder lock, a clamping plate carried by the posts and engaging the opposite end of the cylinder lock, and securing means carried by the posts to secure the clamping plate and to clamp the cylinder lock to the face plate.

3. A cylinder lock mounting comprising a face plate having an opening formed therein to receive one end of a cylinder lock, a pair of posts secured to the plate, one on each side of the cylinder lock, a clamping plate carried by the posts and engaging the opposite end of the cylinder lock, securing means carried by the posts to secure the clamping plate and to clamp the cylinder lock to the face plate, and guide means on the clamping plate to center and maintain the longitudinal axis of the cylinder lock at right angles to the face plate.

WALTER R. SCHLAGE.