N. B. HURD

DRILL PROOF CYLINDER LOCK

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Fig. 1

Fig. 2

Fig. 3

INVENTOR

Norman B. Hurd

BY

Mullican Brothers

ATTORNEYS.
To all whom it may concern:  

Be it known that I, NORMAN B. HURD, a citizen of the United States of America, residing at New Britain, Connecticut, have invented new and useful Improvements in a Drillproof Cylinder Lock, of which the following is a specification.

My invention relates to a cylinder lock, and more particularly to a burglar proof or armored lock.

It is an object of the invention to provide a cylinder lock with improved armor plates for preventing the destruction of the pin tumbler elements by drilling from the front of the lock.

It is a more specific object to provide improved means for holding armor plates on the cylinder and the plug of a cylinder lock.

The above objects may be attained by the means shown in the accompanying drawings, which illustrate a preferred embodiment of my invention.

In said drawings:

1. Fig. 1 is a view in front elevation of a cylinder lock embodying features of my invention.

2. Fig. 2 is a central longitudinal sectional view of the lock shown in Fig. 1.

3. Fig. 3 is a transverse sectional view taken substantially in the plane of the line 3—3 of Fig. 2.

5. designates the cylinder of a cylinder lock. As is usual in locks of this character, a plug 6 is rotatably mounted in the cylinder 5, and the cylinder and plug are each provided with chambers or passages for the reception of pin tumbler elements 7—7.

In order to prevent a drill from being introduced into the front end of the lock at the vulnerable portion thereof for the purpose of damaging the pin tumbler elements, I provide armor plates, preferably of hardened steel. In the preferred form shown, the face of the cylinder has a substantially crescent shaped recess 8, with an undercut peripheral edge as indicated at 9. An armor plate 10, preferably of hardened steel, is so formed as to fit within the recess 8, and the peripheral edge of the plate 10 is beveled so as to fit beneath the undercut edge 9 of the recess so that the metal of the cylinder 5 may be swaged or spun over so as to hold the crescent shaped plate 10 in place thereon. It will be seen that the plate 10 is of sufficient size to protect the vulnerable portion of the cylinder against drilling from the front end.

The plug 6 is fitted with an armor plate 11, preferably cup shaped or having a depending flange 12 snugly fitting about the plug 6. The diameter of the plate 11 is such that when the plates 10 and 11 are in place the face of the plate 11 fits within the lower recess of the crescent and makes a comparatively tight joint therewith. If it is desired to provide a more secure joint than is furnished by a friction fit of the cup shaped plate 11 on the plug 6, means such as the pins 13—13 may be passed through suitable apertures in the skirt or flange 12 and into the plug 6. These pins, when the plug is in place in the cylinder, lie within the cylinder and are housed and protected thereby. In the specific form shown, the first passage for the pin tumbler element in the plug passes through the depending flange on the plate 11. The armor plate on the plug is provided with a key slot registering with the key slot in the plug, and the plug and plate 11, in the form shown, move together as a unit.

It will be seen that the two plates herein disclosed will serve effectively to prevent one from drilling into the pin tumbler elements from the front of the lock, and the plates themselves are securely held in place. While a specific form of the invention has been shown and described in some detail, I wish it understood that changes and modifications may be made within the scope of the appended claim.

I claim:

In a cylinder lock, a cylinder, a plug rotatably mounted therein, pin passages in said cylinder and plug, an armor plate for the front end of said plug and having an inwardly extending flange extending over a part of the body of said plug and secured thereto, one of said pin passages extending through said flange, a second armor plate secured to said cylinder in line with the pin passages therein, said two armor plates lying adjacent each other whereby the pin tumblers are protected against damage by drilling from the front end of said cylinder.

NORMAN B. HURD.