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2,702,468

DUST COVER FOR LOCKS

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FIG. 1

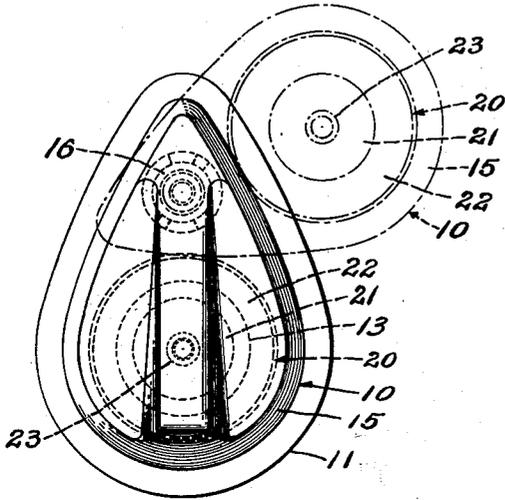


FIG. 2

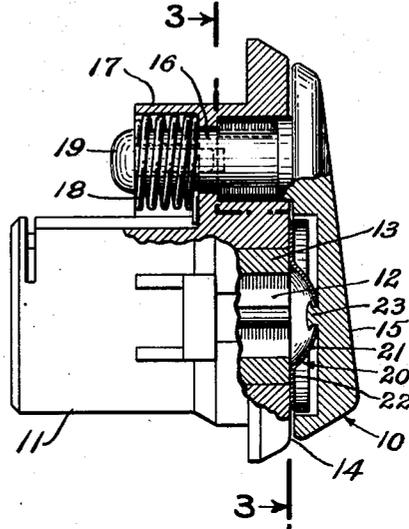


FIG. 3

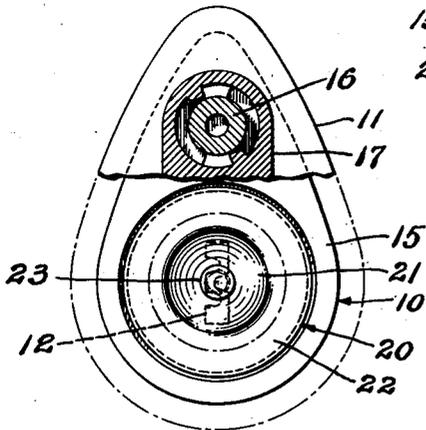
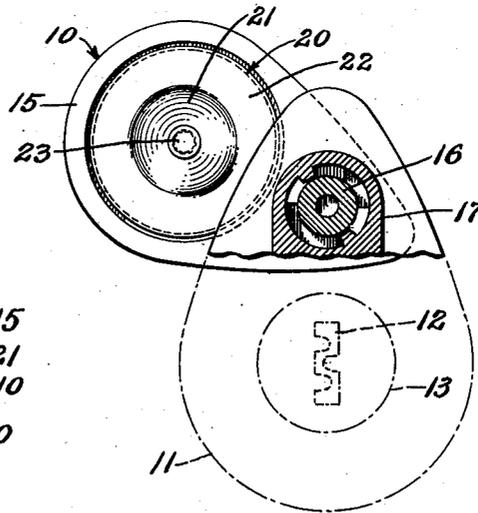


FIG. 4



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2,702,468

## DUST COVER FOR LOCKS

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2 Claims. (Cl. 70-455)

This invention relates to keyhole covers for locks and more particularly to an improved keyhole cover of the class in which an inner seating member or pad is provided for excluding dust and moisture from the keyhole.

It is the purpose of my invention to improve the seating and operating characteristics of keyhole covers of this general class, and also to provide such a keyhole cover that is compact and simple in construction.

As one feature of the invention, I mount the inner pad or seating member upon the cover in such a way that it has full freedom of rocking movement, thereby permitting the pad to seat perfectly when it is pressed against the outer end of the lock cylinder by the cover. Contributing to this feature of the invention is the arrangement whereby the cover exerts a direct and positive pressure upon the pad, this pressure being derived through the means that mounts the cover upon the cylinder. Because of this arrangement, the pressure means can have no restraint upon the free rocking movement of the pad, and efficient seating of the pad may be obtained with a minimum of pressure thereon.

As a further feature of the invention, the seating surface of the pad preferably is flat and, through the rocking of the pad, seats firmly against the flat outer end of the lock cylinder. This construction, together with the fact that little pressure is necessary to seat the pad properly, allows the cover to be swung easily to open and closed positions so as to cause a minimum of inconvenience to the person operating the lock.

I have thus outlined rather broadly the more important features of my invention in order that the detailed description thereof that follows may be better understood, and in order that my contribution to the art may be better appreciated. There are, of course, additional features of my invention that will be described hereinafter, and which will form the subject of the claims appended hereto. Those skilled in the art will appreciate that the conception on which my disclosure is based may readily be utilized as a basis for the designing of other structures for carrying out the several purposes of my invention. It is important, therefore, that the claims to be granted me shall be of sufficient breadth to prevent the appropriation of my invention by those skilled in the art.

Referring now to the drawings:

Fig. 1 is a front elevation showing my improved keyhole cover in position closing the keyhole of the lock, and also showing in broken lines the cover swung to open position.

Fig. 2 is a side view of the same, partly in section, showing the construction of the cover and its pivot means.

Fig. 3 is a view taken on the line 3-3 of Fig. 2.

Fig. 4 is a view similar to Fig. 3, but showing the cover in open position.

In the drawing, my improved keyhole cover, which is indicated generally by the numeral 10, is shown as applied to a lock housing or cylinder 11 for covering the outer end of a keyhole 12 formed in a key plug 13 that is rotatable in the cylinder. Locks of this general construction are known, and it will be understood that the particular lock construction and the mechanism whereby a key controls rotation of the key plug in the cylinder are not important to my invention. Preferably, however, the cylinder 11 has a flat outer face 14, and the key plug 13 is so proportioned that its outer end is substantially flush, or at least does not project beyond said outer face.

As the body portion of my keyhole cover I provide a shutter 15 that is pivoted upon the lock cylinder 11 in such a way as to swing across the outer end of the cylinder and the key plug 13 therein. The shutter 15 not only swings, but also is drawn axially against the outer face 14 of the cylinder 11, as is known in this art. Thus, the shutter 15 in the preferred embodiment of my keyhole cover is provided with an integral stem 16 that turns in a

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lateral extension 17 on the cylinder 11. A coil spring 18 is held under compression on the inner end of the stem 16, this spring being confined between a part of the cylinder extension 17 and the head of a pin 19 fixed in the end of the stem 16, thereby pressing the shutter 15 axially toward the cylinder 11.

My invention resides particularly in the provision of a novel pad 20 and the novel arrangement whereby the inward axial pressure of the shutter seats the pad against the cylinder to exclude dust and moisture from the lock. This pad has a domed central portion 21 that is in direct bearing engagement with the inner side of the shutter 15 at the geometrical center of the pad, thereby providing a universal free rocking movement that enables the pad to accommodate its position very readily to seat properly against the cylinder. Because of this movement, only a relatively small pressure need be exerted upon the pad 20 by the shutter 15 in order to secure the desired seating action.

The portion of the pad 20 that engages the cylinder 11 is shaped to conform to the shape of the surface against which it seats, and since in the embodiment described the outer cylinder surface 14 is flat, the pad 20 is formed with a flat portion 22 for this purpose. It will be observed that the flat seating portion 22 of the pad need only engage the cylinder 11 outwardly of the key plug 13, and therefore may be located radially outward of the domed portion 21, although the flat portion of the pad may be continued across the center of the pad if desired. In order to retain the pad 20 against accidental separation from the shutter 15, the shutter may be provided with a small stud 23 engaged in a central aperture in the domed pad portion 21. The engagement of the stud 23 with the domed portion 21 is very loose, however, thus avoiding any interference with the rocking movement of the pad.

Preferably, the shutter 15 is recessed to receive the pad 20, the shutter being so proportioned, however, that the pad projects a short distance therefrom and the shutter cannot, by engaging the cylinder, interfere with the seating of the pad.

It is believed that operation and advantages of my novel keyhole cover will now be apparent to those skilled in the art.

I now claim:

1. In a lock having a keyway, a shutter mounted for movement into and out of covering relation to said keyway, means pressing said shutter toward covering relation to said keyway, a pad pressed toward said keyway by said shutter, a domed central portion on said pad in bearing engagement with said shutter, and a stud on said shutter loosely engaged in a central aperture in said domed central pad portion to support said pad on said shutter for contributing universal rocking movement of said pad relatively to said shutter, whereby said pad will rock to close said keyway for excluding dust and moisture from said keyway as said shutter is pressed toward covering relation to said keyway by said pressing means.

2. In a lock having a keyway, a shutter mounted for movement into and out of covering relation to said keyway, yielding means pressing said shutter toward covering relation to said keyway, a pad, a central bearing portion on said shutter through which the shutter presses the pad toward said keyway, a domed central rigid portion on said pad in universal rocking contact with said bearing portion of the shutter whereby said pad will rock bodily to close said keyway as it is pressed toward covering relation to said keyway, and a universal joint connection between said shutter and said domed central rigid portion to hold the pad assembled to the shutter when the shutter is out of covering relation to the keyway.

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