

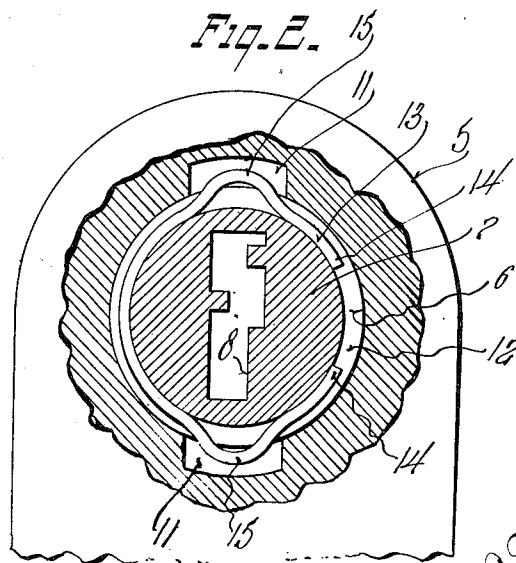
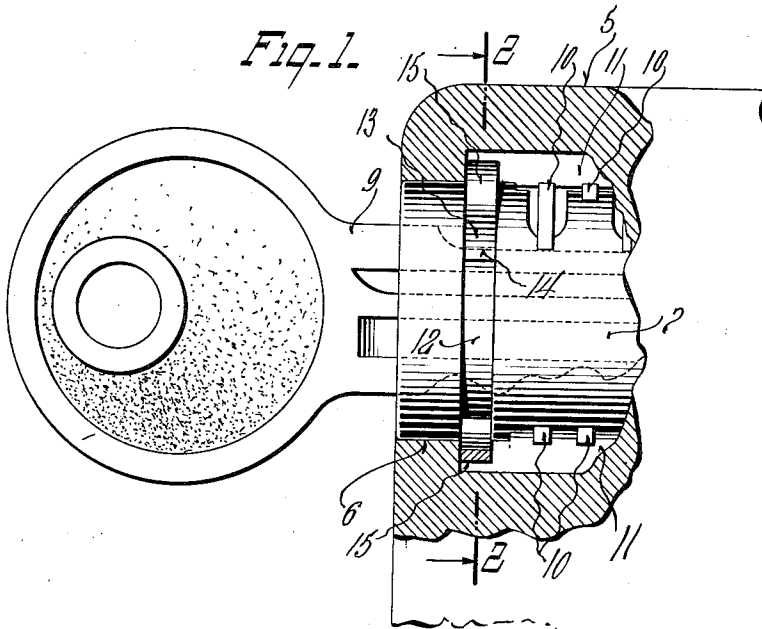
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E. N. JACOBI

1,773,733

LOCK

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UNITED STATES PATENT OFFICE

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LOCK

Application filed October 25, 1928. Serial No. 314,951.

This invention relates to certain new and useful improvements in locks and has as an object the provision of an improved lock structure whereby the cylinder may be readily sold independently of its mounting head or casing and carries with it means for readily securing the same in its casing.

A further object of this invention resides in the provision of an improved lock structure wherein the conventional lock tumbler slots of the casing are utilized to cooperate with cylinder carried means engageable in the slot ends to secure the cylinder in its casing.

And a still further object of this invention resides in the provision of an improved lock construction whereby one end of the cylinder is provided with an annular groove or channel to receive a resilient split ring having one or more substantially U turns formed therein which project beyond the periphery of the cylinder and snap in one or more slots or recesses communicating with the cylinder casing bore to secure the cylinder in the casing.

With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

In the accompanying drawing, I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a fragmentary view of the outer end of a lock structure embodying my invention, the cylinder mounting head or casing being broken away and in section; and

Figure 2 is a view, partly in section and

partly in elevation, taken transversely through Figure 1 on the plane of the line 2—2.

Referring now more particularly to the accompanying drawing, 5 designates a lock cylinder mounting head or casing having a central bore 6 in which a lock cylinder 7 is adapted to be rotatably mounted. The cylinder has a key receiving slot or opening 8 extended therethrough for the reception of a proper key 9 to retract a plurality of spring pressed plungers 10 within the circumference of the cylinder and free them from elongated slots 11 extended along the wall of the mounting head bore.

Frequently, in connection with the spare tire, deck and the like locks for automotive vehicles, the cylinders and keys are supplied by one manufacturer and the casings or mounting heads by another, and with the cylinder retaining means heretofore commonly used, one form of which is illustrated in Letters Patent Number 1,662,487, issued Stephen F. Briggs, March 13, 1928, the retaining means had to be shipped apart from the cylinders. Therefore, this invention contemplates the provision of an improved means, now about to be described, for securing the cylinder in its casing or mounting head which is engaged with the cylinder as an assembled part thereof to preclude its loss in shipment and to provide a simpler and cheaper structure.

The cylinder 7 is annularly grooved or channeled adjacent one end, as at 12, in the present instance the channel being located near its outer end, and a resilient or split ring retainer 13, preferably of flat stock material, is secured therein, the normal resiliency of the retainer holding it on the cylinder, as best shown in Figure 2. At a point spaced inwardly from each end 14 of the member 13, a hump or locking projection 15 is formed by bending the same outwardly and then inwardly, the outermost portion of

the humps 15 projecting beyond the periphery of the cylinder, as clearly evident in Figure 2, to engage in the adjacent ends of the tumbler slots 11.

It will thus be apparent that the manufacturer of the cylinder snaps the member 13 on the cylinder at the factory and that its normal resiliency holds it firmly in position against detachment. In assembling the cylinder in its mounting head or casing 5, pressure is applied to the projections 15 to compress them within the circumference of the cylinder which are then engaged in the bore 6 snapping into the ends of the slots 11 to firmly hold the cylinder in its mounting head or casing but permitting its rotation by a proper key.

From the foregoing description, taken in connection with the accompanying drawing, it will be readily apparent to those skilled in the art to which an invention of the character described appertains, that the retainer 13 at all times firmly grasps the cylinder to prevent its detachment in shipment, and that this invention may be applied to all locks without in any wise changing their structure as the projections of the retainer engage in the ends of the conventional tumbler receiving slots.

What I claim as my invention is:

1. In a lock including a lock casing having a bore, a lock cylinder mounted in the bore and locking tumblers carried by the cylinder and engageable in a slot communicating with the casing bore, means carried by the cylinder and engageable in the casing tumbler slot to secure the cylinder in the casing.

2. In a lock including a casing having a bore provided with longitudinally extended tumbler receiving slots, a lock cylinder rotatable in the casing bore and tumblers carried by the cylinder and engageable in the casing slots to restrain the cylinder against rotation in the casing, yieldable means carried by the cylinder and engageable in the tumbler slots to prevent the detachment of the cylinder from the casing.

3. In a lock including a casing having a bore provided with longitudinally extended tumbler receiving slots, a lock cylinder rotatable in the casing bore and tumblers carried by the cylinder and engageable in the tumbler slots to restrain the cylinder against rotation in the casing, a yieldable retainer mounted in a groove in the cylinder, and projections carried by said retainer and adapted to engage in the ends of the tumbler slots to prevent detachment of the cylinder from the casing.

4. In a lock including a casing having a bore provided with longitudinally extended tumbler receiving slots, a lock cylinder rotatable in the casing bore and tumblers carried by the cylinder and engageable in the

tumbler slots to restrain the cylinder against rotation in the casing, a split spring ring engaged over one end portion of the cylinder in a groove therein, and locking projections formed in said ring member near its ends by bending the same outwardly and then inwardly, said projections snapping into the ends of the tumbler slots when the cylinder is inserted therein to hold the cylinder against axial movement.

In testimony whereof I have hereunto affixed my signature.

EDWARD N. JACOBI.