Dec. 9, 1924. 1,518,996

R. M. MAUNDER

LOCK

Filed July 11, 1922

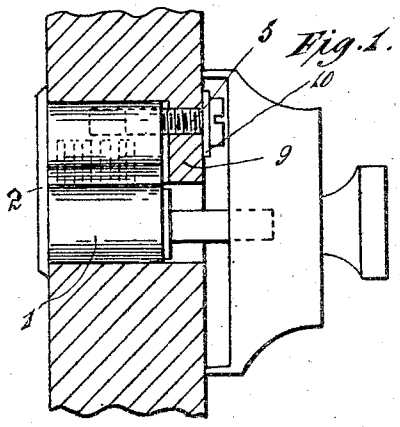


Fig. 1.

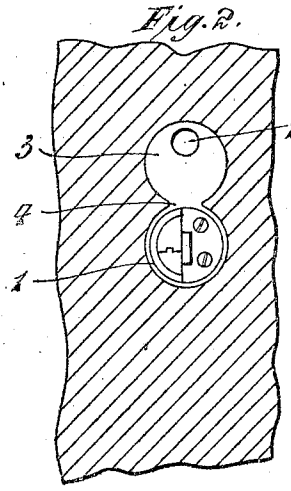


Fig. 2.

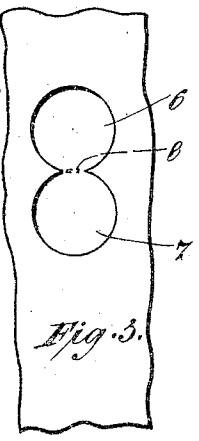


Fig. 3.

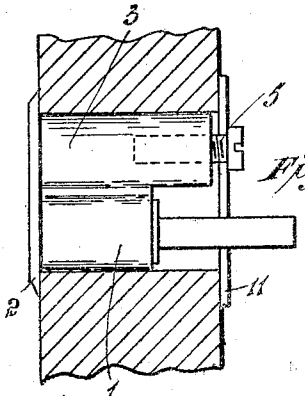


Fig. 4.

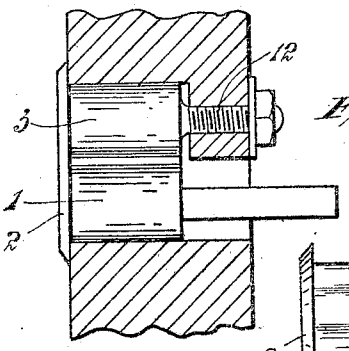


Fig. 5.

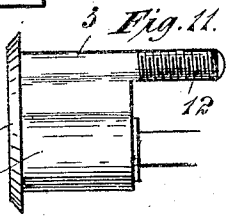


Fig. 11.

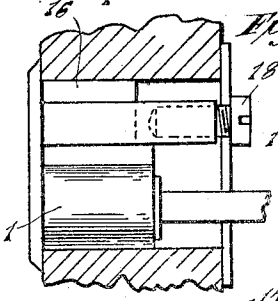


Fig. 6.

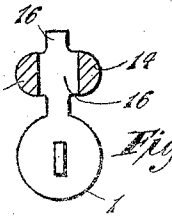


Fig. 7.

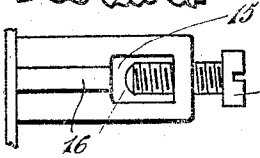


Fig. 8.

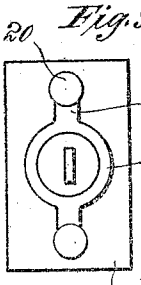


Fig. 9.

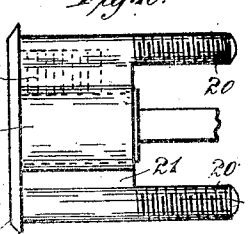


Fig. 10.

INVENTOR

R. M. Maunder:

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Atty.

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UNITED STATES PATENT OFFICE.

ROLAND MOORE MAUNDER, OF PALMERSTON NORTH, NEW ZEALAND.

LOCK.

Application filed July 11, 1922. Serial No. 574,131.

To all whom it may concern:

Be it known that I, ROLAND MOORE MAUNDER, a subject of the King of Great Britain and Ireland, residing in Palmerston North, New Zealand, have invented a new and useful Improvement in Locks; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to locks of the pin tumbler-type in which a barrel containing the cylinder projects from a flange adapted to lie against the face of the door, such barrel entering a hole in the door.

The chief object of this invention is to so construct the lock that it cannot be turned in the hole provided for it in the door.

In carrying out my invention I cast the portion in which the tumbler pins are located in the form of a barrel preferably corresponding in diameter with the barrel containing the revolving cylinder. The two barrels are joined together by means of a web at the point where their circumferences are nearest each other, or are joined by their circumferences overlapping.

The additional barrel is tapped to receive a screw or bolt or the barrel may be extended forward and be threaded to receive a nut.

In order to fit such a lock to a door it is necessary to bore two holes in the woodwork such holes being bored in relation to each other corresponding to the relation of the two barrels to each other, and in the case of them being joined by a web, the two holes are joined by means of a slot to receive the web.

The lock is then placed in position by inserting the barrels in the holes and securing it by means of a single bolt or screw from the rear of the door. By this arrangement it is impossible to turn the lock and where the second barrel is formed into a threaded extension to receive a nut bearing against a plate on the inner side of the door, it is practically impossible to withdraw the lock.

The invention will be illustrated in the accompanying drawings, wherein:—

Figure 1, is a cross section through a door showing the lock in position.

Figure 2, is an end view of the lock in position.

Figure 3, shows how the hole in the door is formed.

Figure 4, and

Figure 5, are similar views to Figure 1 but showing a slightly different shaped lock in each case.

Figure 6, is a side elevation of a modified form of lock, and

Figure 7, is an end elevation thereof.

Figure 8, is a plan,

Figure 9, is an end view, and

Figure 10, is a side view of a further modification.

Figure 11, is a view of another lock.

Referring first to Figures 1 to 3, the body of the lock is formed with the usual barrel 1 projecting from the usual flange 2 while another barrel 3 corresponding in diameter to the main barrel 1 is arranged immediately above such barrel and takes the place of the usual pin carrier, the tumbler pins (dotted lines) being arranged within the barrel 3. The circumferences of the barrels overlap each other at 4 as shown in Figure 2, and are integral with each other at that point.

The barrel 3, as formed in Figures 1 and 2, is of the same length as the barrel 1, the end thereof having a tapped hole 25 above the tumbler pins to receive a screw 5 which is inserted from the inner side of the door in a similar manner to the screws which are threaded into the lugs which usually project from the barrel of locks of this kind. The hole 25 is fairly long so as not to require any shortening of the screw 5 when used on thinner doors. When fitting the lock two holes 6 and 7 of a diameter corresponding to the diameter of the barrels are bored in the door, the circumference of one slightly overlapping the circumference of the other as indicated in Figure 3, which thereby leaves a gap 8 between the two holes. The upper hole 6 for the barrel 3 is preferably not bored right through the door, but a portion 9 is left through which a smaller hole is provided for the screw 5.

The lock is then placed in position by inserting the barrels 1 and 3 into the holes

6 and 7 respectively and securing it to the door by inserting the screw 5 through the washer 10 on the inner side of the door and into the threaded hole 25 in the end of the barrel 3. By tightening the screw 5 the lock is held securely in position and turning is prevented by reason of the position of the two barrels. It is obvious that by such an arrangement the two holes may be bored with the same instrument and no extra fitting is required.

In Figure 4, the barrel 3 is extended beyond the length of the barrel 1 thereby providing a longer thread for the screw 5 which may then be in the centre of the barrel 3. In this case the hole 6 is bored right through the door and a plate 11 covers the opening formed by the two holes.

In Figure 5, the end of the barrel 3 is formed with an integral bolt or stud 12 threaded to receive a nut 13. When the lock is made in this form and the bolt made of sufficient strength and a stout plate, such as the plate 11 in Figure 4, employed it will be practically impossible to withdraw the lock from the door by inserting an instrument between the door and the flange 2.

In Figures 6 to 8 the barrel 3 is formed more in the shape of a cross but the diameter of the ridges 14 correspond to the diameter of the barrel 1. The ridges 14 extend forwardly as indicated in Figures 7 and 8, and have an opening 15 beyond the flange like portion 16 carrying the tumbler pins, the end of the extension beyond the opening 15 having a tapped hole to receive the bolt or screw 18.

In Figures 9 and 10 the barrel 1 containing the cylinder is arranged in the centre of a flange 19 and upon either side thereof integral studs 20 are formed and connected with the barrel by means of webs 21. The ends of the studs are screw threaded to receive nuts, and pass through a back plate in the ordinary way.

In this case it would be necessary to bore three holes, one to receive the main barrel and two smaller ones for the bolts, slots being cut between the larger hole and the smaller ones to receive the webs 21. Similarly, if desired, the lock shown in Figure 5 may have its barrel of the same diameter as the extension 12 thereby forming a smaller barrel in which case two holes would be bored, one large one to receive the main barrel and the other to receive the smaller barrel, a slot being cut between the two holes to receive the web (see Figure 11).

What I claim is:—

1. In a cylinder lock comprising in combination a flange adapted to lie against the outer face of the door, a main cylinder plug-containing barrel, an additional tumbler pin containing barrel lying parallel with and of a different length than that of said main barrel, said barrels projecting from one face of said flange, a web joining said barrels where their circumferences are nearest one another, and fastening means extending through the inner face of the door and connected to said additional tumbler pin containing barrel whereby said barrel will be retained in said door against rotation.

2. In a cylinder lock comprising in combination a flange adapted to lie against the outer face of the door, a main cylinder plug-containing barrel, an additional tumbler pin containing barrel, said barrels projecting from one face of said flange, a web joining said barrels where their circumferences are nearest one another, and fastening means extending through the inner face of the door and connected to the free end of said additional tumbler pin containing barrel substantially as and for the purpose specified.

3. A cylinder lock comprising a flange which lies against the face of the door, a main barrel projecting from said flange, an additional barrel arranged parallel with the main barrel and integrally joined thereto, said additional barrel extending rearwardly to form the fastening means and threaded to receive a nut, substantially as described.

4. A cylinder lock comprising a flange which lies against the face of the door, a main barrel projecting from said flange, an additional barrel arranged parallel with the main barrel and integrally joined thereto, an extension of said additional barrel of reduced diameter threaded to receive a nut, substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

ROLAND MOORE MAUNDER.

Witnesses:

SYDNEY H. HIGGS,

DORA MUIR.