

Sept. 13, 1927.

1,642,047

S. SEGAL

CASING FOR LOCKS

Filed Aug. 1, 1925

Fig. 1,

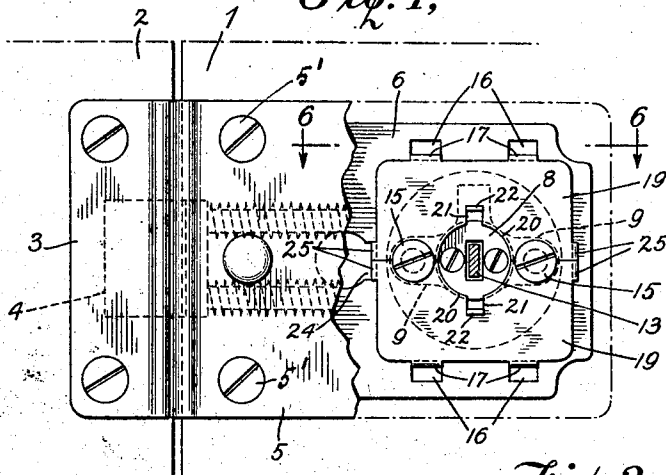


Fig. 2,

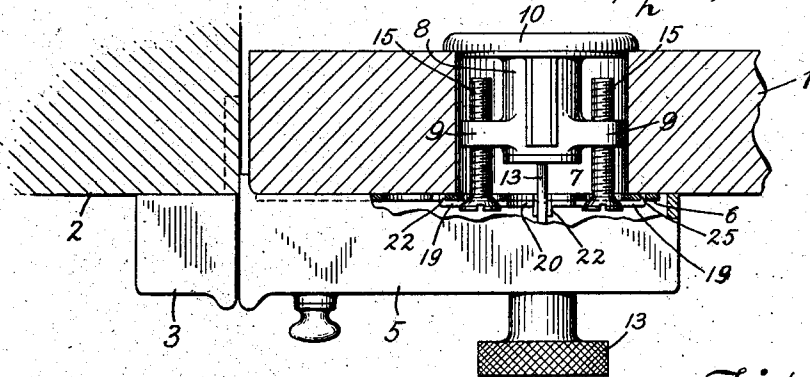


Fig. 3,

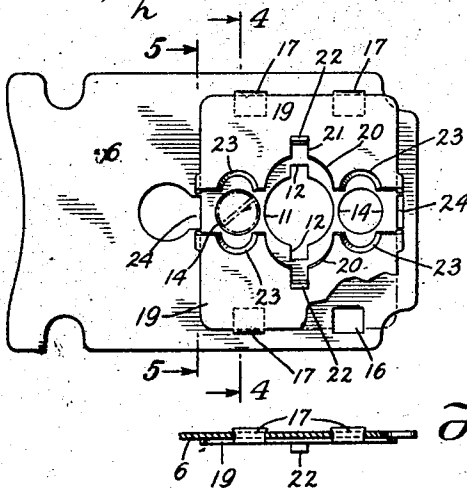


Fig. 4,

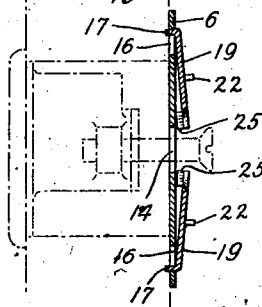


Fig. 5,

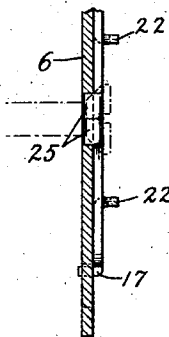
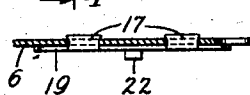


Fig. 6,



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CASING FOR LOCKS.

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This invention relates to locks of the pin-tumbler type and more particularly to the manner in which the pin-tumbler barrel and associated mechanism is connected to the lock casing.

The principal object of the invention is the production of simple and novel means by means of which the usual bolts or screws for connecting the pin-tumbler barrel to the lock casing may be threaded through the usual ears on the tumbler barrel before they are inserted through the usual openings in the rear plate of the lock casing thereby making it unnecessary to "feel" for the ears as customarily.

A further object of the invention is the production with the rear or cover plate of the lock casing of a supplemental movable or slidable plate or plates by means of which the principal object of the invention may be accomplished.

In the accompanying drawing illustrating a practical embodiment of the invention:

Fig. 1 is a front elevation (partly broken away) of a lock casing showing my invention applied thereto.

Fig. 2 is a horizontal section taken there-through.

Fig. 3 is a front elevation of the rear plate of the lock casing.

Fig. 4 is a vertical section on the line 4-4 of Fig. 3.

Fig. 5 is a vertical section on the line 5-5 of Fig. 4.

Fig. 6 is a horizontal section on the line 6-6 of Fig. 1.

Referring to the several figures of the drawing:

1 indicates a door of the swinging type while 2 indicates the door frame to which is fastened a suitable keeper 3 adapted to receive a bolt 4 of any type which is carried by a lock casing 5 fastened to the door 1 by screws 5' extending through the body of the lock casing and through its removable rear wall or cover plate 6 which may, if so desired, be a plate separate from the casing. Mounted in an opening 7 with which the door is provided is a pin-tumbler barrel 8 having the usual perforated interiorly screw-threaded ears 9 said barrel also carrying an escutcheon plate 10 engaging the outer face of the door.

The rear wall or cover plate 6 is provided with an opening 11 having diametrically opposed slots 12 communicating therewith and

when the parts are assembled in the proper position on the door an operating spindle 13 which is connected to the usual key plug mounted in the barrel 8 extends through said opening 11 and into the lock casing. The end of said spindle 13 operatively connects with a mechanism (not shown) for actuating the bolt 4 when the proper key is inserted in the key plug from without the door. The bolt 4 may be also actuated as is usual from within the door by a knob 13 mounted on the lock casing, this mechanism however forming no part of the present invention. The rear or cover plate 6 is also provided with annular openings 14 of a size sufficient to receive therethrough the heads of screws 15 the shanks of which are threaded through the interiorly screw-threaded ears 9.

16 indicates openings in said cover plate 6 receiving inturned fingers 17 of two supplemental plates 19, the inner edges of said fingers being preferably somewhat enlarged to prevent withdrawal of said supplemental plates from said plate 6 while permitting movement of said fingers 17 within the openings 16 as shown in Figs. 4 and 6. The supplemental plates 19 are each provided with a semi-circular opening 20 having slots 21 communicating therewith and when the plates are brought together said semi-circular openings form a round opening with slots registering with the round opening 11 and slots 12 in the plate 6. The supplemental plates 19 also have the metal adjacent the end of the slots 21 struck up to form finger pieces 22 whereby movement of the plates 19 towards or away from each other may be easily effected. The plates 19 are also provided with semi-circular openings 23 having beveled edges and when the plates are brought together two round openings are formed thereby which are in alignment with the openings 14 in the plate 6 but which are of smaller diameter than said openings 14, in fact their size is sufficient to receive the shank of the screws or bolts 15 but is not sufficient to permit the heads of said screws or bolts to pass therethrough. The plate 6 is also slotted as at 24 to receive locking lugs 25 carried by the plates 19 and which tend to retain the plates, in an obvious manner, in their operative or meeting position.

Heretofore the supplemental plates just described have not been used and the open-

ings in the plate 6 into which the shanks of the screws or bolts 15 extend have been sufficiently large only to have the shanks of the screws or bolts extend therethrough but not the heads. When the parts have been assembled and the pin-tumbler barrel has been inserted in the opening 7 it has been customary to hold the plate 6 against the rear face of the door with the operating spindle 13 extending through the opening 11 and then insert the screws or bolts through their openings and thread them through the ears 9 until the plate 6 is tightly clamped against the door. This has made it necessary to "feel" for the ears 9 with the ends of the screws or bolts 15 which has been an awkward and therefore an objectionable operation. By means of this invention this objection has been overcome as the screws or bolts 15 are first threaded partially through the ears 9. The pin tumbler barrel is then held in the opening 7 as ordinarily and the rear plate 6 with the supplemental plates 19 in open position is held against the inner face of the door with the operating spindle 13 extending through the opening 11 and with the heads of the screws 15 extending through the openings 14. It is immaterial if the operating spindle 13 should sag slightly as the slots 12 have been provided to receive said spindle should this condition obtain. After the parts described have been properly positioned the plates 19 are brought into meeting engagement with the locking lugs 25 entering the slots 24. The screws 15 are then screwed "home" with the heads thereof engaging the beveled edges of the round openings formed by the semi-circular openings 23 but as said openings are too small to receive the heads of said screws therethrough the parts are all held tightly in assembled and operative position. The lock casing 5 is then screwed to the door with the rear plate 6 entering said casing in the usual manner.

I claim as my invention:

1. In a lock, a lock casing, a wall, a plate comprising a plurality of parts one of which is movable with respect to said wall, a pin-tumbler mechanism and means extending through said wall and plate for securing said pin-tumbler mechanism to said lock casing.

2. In a lock, a lock casing, a removable wall, a plate associated with said wall, a pin tumbler mechanism and means extending through said wall and plate for connecting said pin tumbler mechanism to said casing.

3. In a lock, a lock casing, a removable wall, a plate carried by said wall and movable with respect thereto, a pin tumbler mechanism and means extending through said wall and plate for connecting said pin tumbler mechanism to said casing.

4. In a lock, a lock casing, a removable

rear wall, a plate carried by said wall and movable thereon, a pin tumbler mechanism and a headed bolt extending through said wall and plate for connecting said pin tumbler mechanism to said casing.

5. In a lock, a lock casing, a rear wall provided with an opening therein, a plate carried by said wall and provided with an opening registering with said first named opening but of smaller diameter than said first opening, a pin tumbler mechanism and a headed bolt extending through said openings for connecting said pin tumbler mechanism to said lock casing.

6. In a lock, a lock casing, a rear wall, a plate comprising two sections carried by said rear wall and movable towards and from each other, a pin tumbler mechanism and means extending through said plate and wall for connecting said pin tumbler mechanism to said lock casing.

7. In a lock, a lock casing, a wall provided with an opening, a slot communicating with said opening, a pin tumbler mechanism, means connecting said wall and said pin tumbler mechanism and a spindle connected to said pin-tumbler mechanism and extending through said opening.

8. In a lock, a lock casing, a rear wall, a plate carried by said rear wall and comprising two sections movable towards and away from each other on said wall, said sections each being provided with a semi-circular opening adapted to form a round opening when said sections are brought together, a pin tumbler mechanism and a headed bolt extending through the round opening and connected to said pin tumbler mechanism.

9. In a lock, a lock casing, a wall having an opening therein, a plate carried by said wall comprising two sections each provided with a semi-circular opening adapted to form a round opening when said sections are brought together, a pin tumbler mechanism, a perforated ear thereon and a headed bolt extending through said round opening and the opening in said wall and through said ear for connecting said pin tumbler mechanism to said casing.

10. In a lock, a lock casing, a rear wall having an opening therein, a plate carried by said wall and comprising two sections each provided with a partial opening forming a continuous opening when said sections are brought together, a pin tumbler mechanism and a bolt connecting said mechanism and casing together and provided with a head of a size permitting it to extend through the opening in said wall but not the opening in said plate.

11. In a door lock, the combination with a barrel, of a headed bolt adapted to be secured to the barrel and anchor means including a plurality of plates one of which

is provided with a slot to receive and lock behind the head of said bolt, said plate being movably mounted on the other plate and having abutment relation with said
5 bolt.

12. In a door lock, the combination with a key-operated barrel mechanism and means for locking the barrel bodily to a door and against rotation relative to the door, said
10 means including a headed bolt having en-

gagement with the barrel and extending into the door, of means engaging the head of said bolt by a movement transverse to the direction of movement of the bolt to prevent withdrawal of the bolt and the
15 barrel from the door.

Signed at New York, in the county of New York, and State of New York, this 31st day of July, A. D. 1925.

SAMUEL SEGAL.