May 12, 1953 J. F. PRICE 2,638,370

COMBINED CLOSURE LATCH AND LOCK

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Fig. 1.

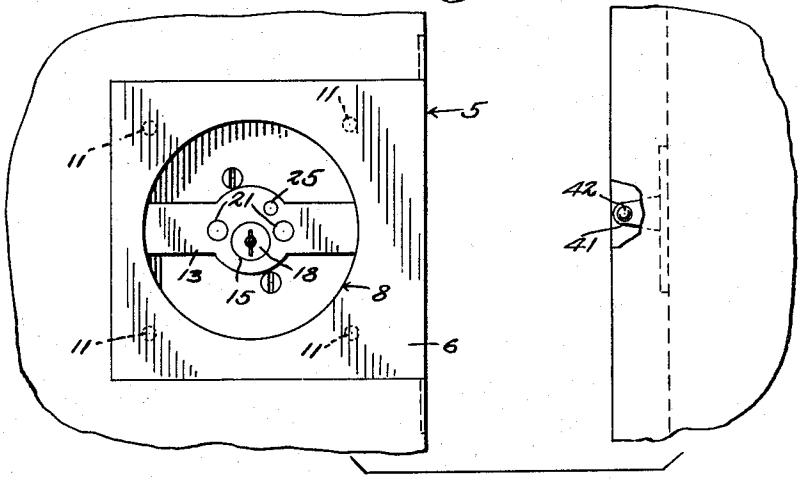
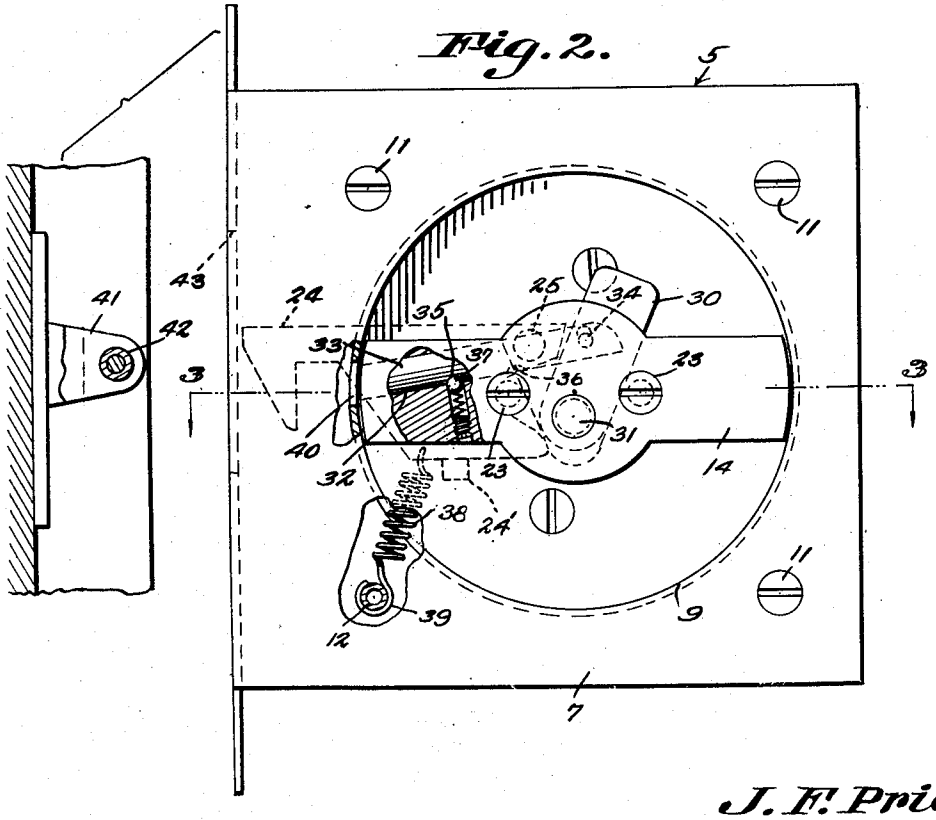


Fig. 2.



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Fig. 3.

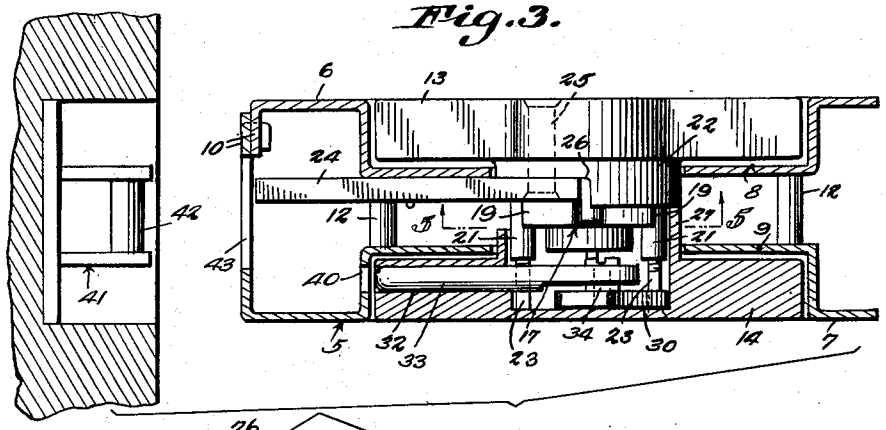


Fig. 4.

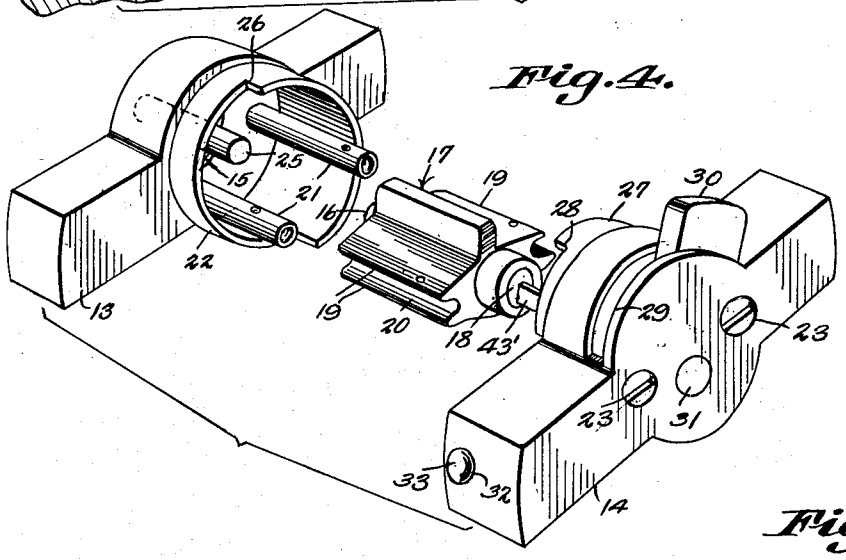


Fig. 6.

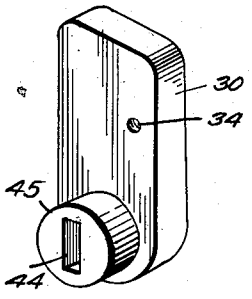
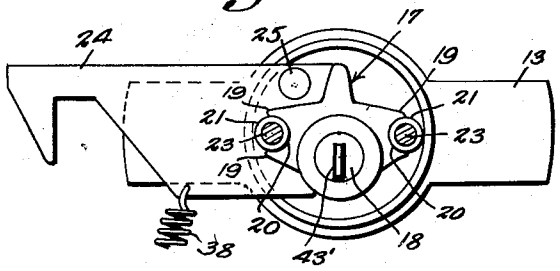


Fig. 5.



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COMBINED CLOSURE LATCH AND LOCK

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1 Claim. (Cl. 292—106)

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This invention relates to a combined latch and lock designed for use in connection with sliding closures.

An important object of the invention is to provide a combined latch and lock embodying a pivoted latch member including a housing mounted in an opening formed in one edge of a closure, the latch member adapted to swing into engagement with a keeper secured to the door frame.

Another object of the invention is to provide locking means in the form of a sliding bolt which is movable with the latch and is so constructed and arranged that it may be projected into an opening formed in the latch housing, to prevent rotation of the latch when it is desired to lock the latch and closure with which the latch is used.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawings

Figure 1 is a fragmental elevational view of a sliding closure, the sliding closure being broken away illustrating the latch and latch housing forming the subject matter of the present invention, as mounted within an opening of the closure.

Fig. 2 is an enlarged elevational view of the combined latch and lock, showing the inner side of the housing, a portion of the latch housing being broken away illustrating the sliding locking bolt.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a perspective view ilustrating the various elements of the combined latch and lock, as disassembled.

Fig. 5 is a sectional view taken substantially on line 5—5 of Fig. 3.

Fig. 6 is a perspective view of the sliding bolt actuating arm.

Referring to the drawings in detail, the combined latch and lock comprises a housing indicated generally by the reference character 5, the housing including sections 6 and 7, which are preferably stamped from heavy sheet metal material, the section 6 constituting the outer section of the housing, while the section 7 constitutes the inner section of the housing.

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As shown, the section 6 is formed with a depression 8 in the outer surface thereof, while the section 7 is formed with a depression 9 in the outer surface, the sections having overlapping ears 10 that are secured together.

Bolts 11 extend through openings in the sections 6 and 7, the bolts having threaded ends threaded in openings of the section 6, securing the sections together. Spacing sleeves 12 are mounted on the bolts and have their ends engaging the inner surfaces of the sections 6 and 7, holding the sections properly spaced apart.

The latch comprises latch handles 13 and 14, which are of lengths to fit within the depressions 8 and 9 of the housing, the outer surfaces of the handles being flush with the outer surfaces of the housing.

The latch handle 13 is formed with a central opening 15 which extends therethrough, the central opening 15 being designed to accommodate the extension 16 forming a bearing for the connecting member 17 which is hollow, and provides a support for the lock tumbler barrel 18, which is of the usual and well known construction, the extension 16 having a key opening whereby a key may be inserted in the tumbler barrel, operating the tumblers to unlock the tumbler barrel.

The connecting member 17 is provided with enlargements 19 that are formed with longitudinal grooves 20 that accommodate the posts 21 that are secured to the inner surface of the collar 22 which extends inwardly from the inner surface of the latch handle 13.

The posts 21 are formed with threaded bores extending inwardly from their ends and accommodate the screws 23 that extend through the handle 14, securing the latch handles 13 and 14 together.

The latch is indicated by the reference character 24 and as shown by Fig. 5 of the drawing, the latch 24 is secured to the handle 13, by mounting on the pin 25, which extends from the latch handle 13. The collar 22 is cut away at 26 providing a clearance for the latch 24, which normally rests on post 24'.

As shown by Fig. 5 of the drawings, the inner end of the latch 24 is cut out to fit over one of the enlargements 19 to securely hold the latch 24, to the connecting member 17, to move therewith.

The latch handle 14 fits in the depression 9, and the outer surface thereof lies flush with the outer surface of the section 7, as shown by Fig. 3 of the drawings. Extending inwardly from the

latch handle 14, is the collar 27 which fits against the inner edge of the collar 22, the collar 27 having a cut out portion 28 adapted to register with the cut away portion 26, providing a clearance for the latch 24.

The latch handle 14 is formed with a cut away portion 29 in which the sliding locking bolt actuating arm 30 operates, the arm 30 being pivotally mounted on the pin 31 that extends into the latch handle 14.

The latch handle 14 is formed with a bore 32, in which the sliding locking bolt 33 operates, the bolt 33 being pivotally connected with the arm 30, at 34 so that pivotal movement of the lock bolt actuating arm 30, will move the bolt 33 into and out of operation.

Depressions 35 and 36 are formed in the lower surface of the bolt 33 and accommodate the ball 37 which is spring pressed, and which moves into the depressions 35 or 36, to hold the bolt 33 against accidental movement. The reference character 38 indicates a coiled spring which has one of its ends connected to the latch 24, while the opposite end thereof is secured to the latch housing by having its hooked end 39 hooked around a spacing sleeve 12. Thus it will be seen that due to this construction, the spring 38 acts to normally urge the latch 24 downwardly.

With the latch in its lowermost position, the sliding bolt 33 will fall opposite to the keeper opening 40 with the result that when the bolt 33 is swung forwardly, it will move into the keeper opening 40, and prevent rotation of the latch handles to operate the latch 24 and permit opening of the sliding closure with which the lock is used.

The reference character 41 indicates the keeper that is secured to the door frame, the keeper including a bar 42 which lies in the path of travel of the latch 24, when the closure carrying the latch is moved into contact with the frame of the door. An opening 43 is formed in the latch housing, and the keeper member 42 projects through this opening for engagement with the latch member 24.

The locking bolt actuating arm 30 is directly connected to the tumbler barrel 18, by the shank 43' that extends from the tumbler barrel 18, the opposite end of the shank 43' extending within the rectangular opening 44 of the lug 45, secured to the rear surface of the arm 30.

The key opening of the tumbler lock is disposed centrally of the latch handle 13 to the

end that when the proper key is positioned therein, the lock may be actuated to move the arm 30 and sliding bolt 33 connected therewith, to the locked or unlocked position.

It will be obvious that by moving the arm 30 in an anti-clockwise direction, the bolt 33 may be projected through the keeper opening in the wall of the depression 9, locking the latch against movement from the outside. It is of course obvious that by returning the arm 30 to the position as shown by Fig. 4 of the drawings, the latching may be operated to release the closure, from the inside.

From the foregoing detail disclosure, it is believed that a further disclosure as to the construction and operation of the combined latch and lock, is unnecessary.

Having thus described the invention, what is claimed is:

In a combined latch and lock for sliding closures, a housing adapted to be secured to a sliding closure, said housing having depressions in the outer sides thereof, pivoted latch handles mounted in the depressions, a latch handle connecting member, said latch handle connecting member having grooves formed in the longitudinal side edges thereof, posts carried by one of said handles fitted in the grooves, means for securing the posts to the opposite handle, a latch arm secured to the latch handle connecting member, said latch arm adapted to engage a keeper carried by the closure frame, a sliding bolt mounted within one of the handles, a pivoted actuating arm connected with said bolt and extending through one of the handles whereby the sliding bolt may be actuated, and said housing having an opening into which the sliding bolt may be projected for locking the handles against rotation and operation of the latch.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
414,332	Seely	Nov. 5, 1889
2,254,007	Fletcher	Aug. 26, 1941
2,387,187	Smith	Oct. 16, 1945

FOREIGN PATENTS

Number	Country	Date
10,896	Great Britain	May 21, 1896