

May 4, 1926.

1,583,594

P. JACKSON
LATCH FOR REMOVABLE PANELS

Filed Sept. 21, 1925

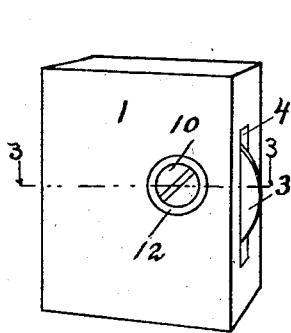


Fig. 1

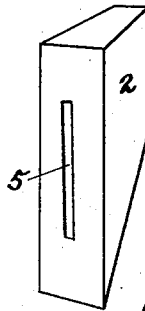


Fig. 2

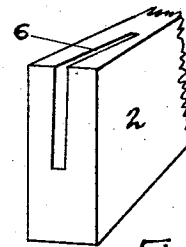


Fig. 2

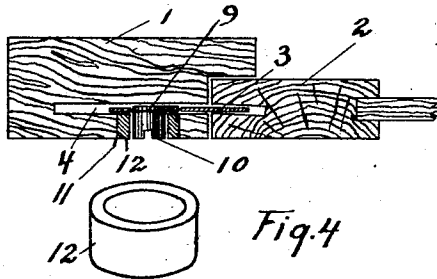


Fig. 3



Fig. 4

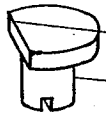


Fig. 5

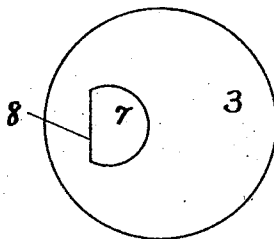


Fig. 6

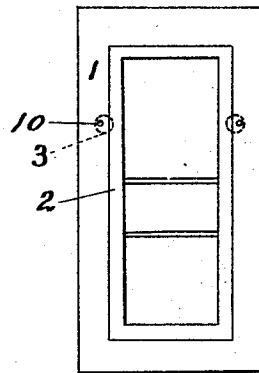


Fig. 7

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UNITED STATES PATENT OFFICE.

PAUL JACKSON, OF SAGINAW, MICHIGAN.

LATCH FOR REMOVABLE PANELS.

Application filed September 21, 1925. Serial No. 57,661.

To all whom it may concern:

Be it known that I, PAUL JACKSON, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Latches for Removable Panels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention is a latch or locking device especially adapted for fastening removable panels to doors.

The object of the invention is to provide a simple and inexpensive locking device that is so concealed within the rails of the panel and door that only a small screw head shows on one side of the rail and nothing shows on the other side.

A further object is to provide a locking device that can be easily and quickly assembled in place in the rails, that does not require the use of threaded or accurately machined parts and that is capable of drawing the two rails into such close contact that rattling is entirely prevented.

My improved device employs only three parts, all of which are of simple construction and so arranged that when assembled they form a permanent part of the rail in which they are mounted.

With the foregoing and certain other objects in view, which will appear later in the specifications, my invention comprises the devices described and claimed and the equivalents thereof.

Fig. 1 is a side view of part of a rail with my improved locking device in place.

Fig. 2 is a view of the opposing rail having a slot as preferably arranged to receive the locking device.

Fig. 2^a is a similar view, partly broken away, showing a modified arrangement of the slot.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

Figs. 4, 5 and 6 are respectively perspective views of the bushing, the bolt and the locking disk.

Fig. 7 is a front view of a door, its panel secured in place by my improved locking device, for fastening removable panels to doors, and for fastening screens and storm sash to widow and door frames.

As is clearly shown in the drawings, nu-

meral 1 indicates the rail of the door frame and 2 the rail of the panel. The locking device employs the usual latch 3 of the eccentric disk type operating in a slot 4 formed in the rail 2, so that the disk when rotated will be projected outward from the slot and engage the opposing slot of the panel rail 2, as shown in Fig. 3.

Numeral 5 indicates a preferred arrangement of the slot in the rail 2, the slot in this case being slightly skewed with respect to the longitudinal axis of the rail, so that the disk 3 will not project exactly parallel with the slot, but will engage one side of it, and as the disk is farther projected the slight angular position of the slot will cause the panel rail 2 to be forced back against the mortise of the stop on the door rail 1.

In Fig. 2^a a modified form of slot 6 is shown, in which the plane of the slot is at a slight angle transversely with the plane of the rail. In this case the action of the eccentric disk when projected is as before, to force the rail 2 against the rail 1, but it accomplishes this result by the slight angularity in the transverse direction of the slot 6.

The disk 3 is formed with a hole 7 which is non-cylindric and may have a flat side wall 8. The hole 7 receives the flat disk head 9 of a bolt or tumbler, as shown in Figs. 3 and 5. The tumbler has a shank 10, in the end of which is a slot to receive the end of a screw driver, or similar tool by which the tumbler and the disk 3 can be rotated.

To assemble the device, the disk 3 is first slipped into the slot 4, then the disk head 9 of the bolt is dropped into place through a suitable hole provided in one side of rail 1. Into this hole 11 is received a ferrule or bushing 12, and the bushing is secured in place, either as a drive fit or glued, as the case may be. The bore of the bushing receives the shank 10 of the bolt or tumbler and serves as a bearing in which the shank can be turned when the eccentric disk 3 is rotated to lock or unlock the two rails 1 and 2.

As already explained, the disk 3 when projected into the slot of rail 2, that is, either into the longitudinal slot 5 of Fig. 2, or the longitudinal transversely inclined slot 6 of Fig. 2^a, binds the two rails together tightly and for the purpose of adapting itself to the slight angularity of this requirement, the disk 3 can move laterally to a limited extent

on the disk head 9, as is evident from inspection of Fig. 3.

By the means above described, I have produced a simple and relatively inexpensive
5 latch made of only three parts, none of which requires a screw thread, and the latch when assembled is invisible from one side of the door and practically so from the other side, insomuch as the end of the shank 10
10 is the only part exposed to view on that side.

Although the latch member 3 has been shown and described as an eccentric disk, that being the preferred form, it is obvious
15 that a pivotally mounted plate of any other suitable shape may be employed without departing from my invention as set forth in the claim.

Having thus described my invention, what
20 I claim and desire to secure by Letters Patent is:

The combination, with a door having a re-

movable panel, said door having narrow registering slots in the rails thereof, one of said slots disposed in slight angular relation to
25 the other slot, an apertured rotatable latch member substantially equal in thickness to the width of said slots, said latch member mounted in one of said slots, a tumbler comprising a shank and a flat head, said head of
30 thickness substantially equal to said latch member and operatively received in the aperture of said latch member, that rail in which said member is mounted having a hole in one side only, the shank of said tumbler projecting co-axially within said hole, and a
35 bushing fitted to said hole and secured therein, said bushing comprising a bearing for said shank and a stop for engaging one side of the head of said tumbler to prevent its
40 longitudinal movement.

In testimony whereof, I affix my signature.

PAUL JACKSON.