

Aug. 15, 1961

C. R. WOOD

2,996,323

LATCH CONSTRUCTION

Filed Oct. 31, 1960

FIG. 1

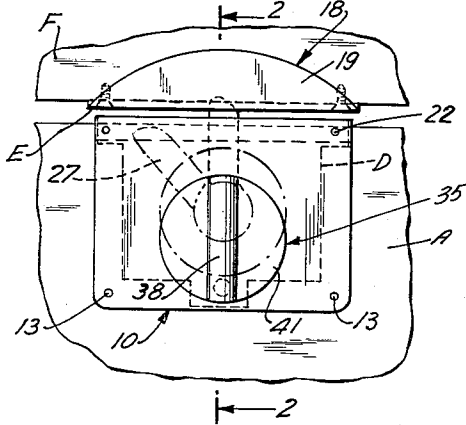


FIG. 2

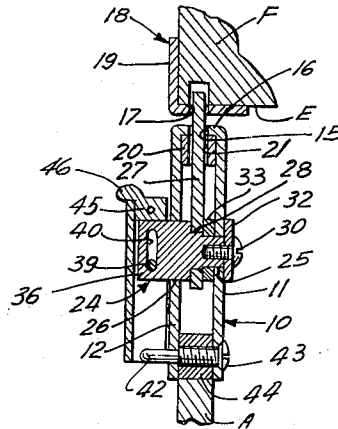
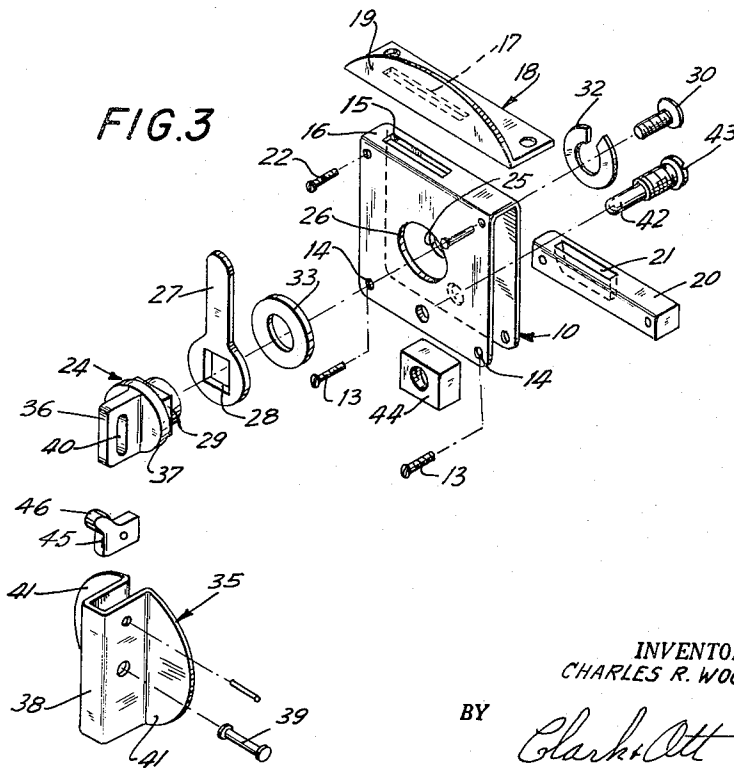


FIG. 3



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2,996,323

LATCH CONSTRUCTION

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Filed Oct. 31, 1960, Ser. No. 66,390

4 Claims. (Cl. 292-207)

This invention relates to a latch construction for latching closure members in secured latched relation.

An object of the invention is to provide a latch construction having a latch element adapted to be rotated to and from latched and unlatched relation and which is adapted to be secured in latched relation against turning movement.

Another object of the invention is to provide a latch construction having a reciprocatory handle member operatively connected with the latch element for turning the same to and from latched and unlatched relation and which is movable with reference to the latch element for securing the same in latched position against turning movement.

Still another object of the invention is to provide a latch construction of said character which is particularly adaptable for securing the closures of cabinets, boxes, drawers and the like in latched relation.

A further object of the invention is to provide a latch construction which is compact, durable in construction and effective for its intended purpose.

With the foregoing and other objects in view, reference is now made to the following specification and accompanying drawings in which the preferred form of the invention is illustrated.

In the drawings:

FIG. 1 is a face view of the latch mechanism constructed in accordance with the invention and showing the same in applied position.

FIG. 2 is an enlarged vertical sectional view taken approximately on line 2-2 of FIG. 1.

FIG. 3 is a perspective view of a somewhat reduced size showing the parts of the latch mechanism in separated juxtaposition.

Referring to the drawings by characters of reference, the latch mechanism includes a housing 10 of U-shaped formation in section arranged centrally over the forward edge of a closure A of a cabinet, box and the like with the opposite side plates 11 and 12 thereof overlying inner and outer face portions of the closure. The housing is secured in position on the closure in overlying relation with a recessed portion D thereof by securing means 13 such as screws or rivets secured in openings 14 in the opposite side plates 11 and 12 of the housing and which extend through the wall of the closure within the housing. The housing is formed with a slot 15 in the forward wall 16 thereof which is disposed in alignment with a corresponding shaped slot 17 in a keeper 18 secured over the edge E of a wall F of a cabinet, box and the like. The keeper 18 is provided with a forward flange 19 which overlies an edge portion of the forward face of the wall F. Located within the housing 10 adjacent the forward wall 16 is a stiffener 20 having a longitudinally extending slot 21 which is located in registry with the slots 15 and 17 in the housing and keeper. The stiffener 20 is secured in position between the side plates 11 and 12 by securing means 22 such as screws or rivets extending through the side plates 11 and 12.

A latch stud 24 is rotatably mounted in aligned openings 25 and 26 in the side plates 11 and 12 of the housing on which is arranged a latch bolt 27 for swinging movement therewith to and from latched and unlatched relation with the keeper 18. The latch bolt 27 is provided with a rectangular opening 28 which fittingly engages a correspondingly shaped shank portion 29 on the latch bolt

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27 with the free outer end of the latch bolt engaging in the slot 21 in the stiffener 20 when in unlatched relation. The latch bolt projects through the slot 15 in the forward wall 16 of the housing and through the slot 17 in the keeper 18 when in latched relation. The latch stud 24 is secured in position in the openings 25 and 26 in the housing by a screw stud 30 threadedly secured in the inner end thereof and with a lock washer 32 arranged in position on the stud between the plate 11 of the housing and the head of the screw stud. A washer 33 is arranged on the latch stud between the latch bolt and the inner face of the side plate 11.

It will be understood that the latch stud is rotatable for swinging the latch bolt to and from latching relation with the keeper 18. For this purpose a handle member 35 is arranged on a narrow forward projection 36 formed on the head 37 of the latch stud 24 for manually rotating the latch stud. The head 37 extends through the opening 26 in the side plate 12 against the forward face of the latch bolt and with the projection 36 extending forwardly of said side plate. The handle member is of general circular formation with a U-shaped central portion 38 in cross-section which slidably engages the projection 36 and is secured in position thereon for limiting reciprocatory movement by means of a rivet 39 extending through a slot 40 in the projection 36. The side portions 41 of the handle member slidably engage against the side plate 12 with the aforesaid reciprocatory movement of said handle member. When in the broken line position shown in FIG. 1 of the drawings, the handle member is in position with the rivet 39 disposed at the upper end of the slot 40 for moving the latch stud bolt 27 to and from latching and unlatching relation. When in latched relation with the latch bolt extending upwardly in engagement with the slot 17 of the keeper 18, the handle member is adapted to be moved downwardly to the full line position shown in FIG. 1 of the drawings to dispose the rivet 39 at the lower end of the slot 40 and with the U-shaped central portion 38 into engagement with the projecting end 42 of a screw stud 43 extending through the side plates 11 and 12 and threadedly secured in a spacer block 44 located between said side plates.

A spacer member 45 is riveted or otherwise secured within the U-shaped portion 38 of the handle member at the upper end thereof and this provides a thumb or finger engaging projection 46 for moving the handle member.

There is thus provided a latch construction which is durable and efficient for retaining a closure of a cabinet, box, drawer and the like of light weight construction in latched relation, and which avoids the use of springs and the like and is so constructed that the same will not readily get out of order by the accumulation of foreign matter therein when used by painters and fishermen out of doors.

While the preferred form of the invention has been shown and described herein, it is to be understood that the same is not so limited but shall cover and include any and all modifications of the invention which fall within the purview thereof.

What is claimed is:

1. In a latch construction, a member of U-shaped formation in section having oppositely disposed front and rear walls and an end wall connected between said front and rear walls and having a longitudinally extending slot opening therethrough, a latch stud pivotally mounted in openings in said front and rear walls and having a forward end extending forwardly of said front wall, said forward end having parallel opposite side faces and a narrow slot opening therethrough, a latch bolt arranged on said latch stud between said front and rear

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walls for turning movement with said latch stud from retracted relation to projecting relation through the slot in said end wall, a lug affixed to and extending outwardly from said front wall in spaced relation from said latch stud, a handle member mounted on said forward end of said latch stud for reciprocatory sliding movement, and means carried by said handle member slidably engaging through said slot in said forward end for limiting the sliding movement of said handle member whereby when said latch stud is rotated to dispose said latch bolt in projecting relation said handle member is movable into engagement with said lug to thereby retain said latch stud and latch bolt against rotation.

2. In a latch construction, a member of U-shaped formation in section having oppositely disposed front and rear walls and an end wall connected between said front and rear walls and having a longitudinally extending slot opening therethrough, a latch stud pivotally mounted in openings in said front and rear walls and having a forward end extending forwardly of said front wall, said forward end having parallel opposite side faces and a narrow slot opening therethrough, a latch bolt arranged on said latch stud between said front and rear walls for turning movement with said latch stud from retracted relation to projecting relation through the slot in said end wall, a lug affixed to and extending outwardly from said front wall in spaced relation from said latch stud, a handle member having an elongated recess in the inner face thereof slidably fitting the forward end of said latch stud, means carried by said handle member slidably engaging through the said slot in said forward end for limiting the sliding movement of said handle member whereby when said latch stud is rotated to dispose said latch bolt in projecting relation said handle member is movable to engage said lug in said recess to thereby retain said latch stud and latch bolt against rotation.

3. In a latch construction, a housing, a latch stud pivotally mounted in said housing and having a forward end extending forwardly thereof, a latch bolt arranged on said latch stud within said housing for turning movement with said latch stud from retracted relation to projecting relation through one end thereof, a lug affixed to and extending outwardly from said housing in spaced relation from said latch stud, a handle member mounted on said

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forward end of said latch stud for limited reciprocatory movement whereby when said latch stud is rotated to dispose said latch bolt in projecting relation said handle member is movable into engagement with said lug to thereby retain said latch stud and latch bolt against rotation.

4. A latch construction for latching a closure of a cabinet and the like in latched relation with keeper means, said latch construction including a member of U-shaped formation in section having oppositely disposed front and rear walls and an end wall connected between said front and rear walls and having a longitudinally extending slot opening therethrough, said member being adapted to be secured over an edge portion of a closure with the front and rear walls thereof overlying front and rear face portions of the closure and with the closure inwardly recessed within said front and rear walls, a latch stud pivotally mounted in openings in said front and rear walls and having a forward end extending forwardly of said front wall, said forward end having parallel opposite side faces and a narrow slot opening therethrough, a latch bolt arranged on said latch stud between said front and rear walls for turning movement with said latch stud from retracted relation to projecting relation through the slot in said end wall and to latchingly engage keeper means carried by said cabinet for retaining said closure member in latched closed relation, a lug affixed to and extending outwardly from said front wall in spaced relation from said latch stud, a handle member mounted on said forward end of said latch stud for reciprocatory sliding movement, and means carried by said handle member slidably engaging through said slot in said forward end for limiting the sliding movement of said handle member whereby when said latch stud is rotated to dispose said latch bolt in projecting relation said handle member is movable into engagement with said lug to thereby retain said latch stud and latch bolt against rotation.

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