Feb. 18, 1941. P. A. BERNHARDT 2,232,020

DOOR LATCH

Filed July 15, 1938

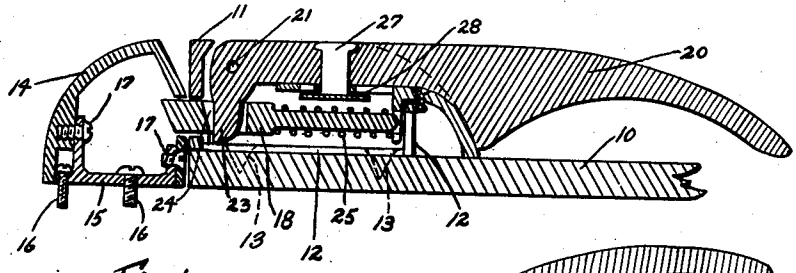


Fig. 1

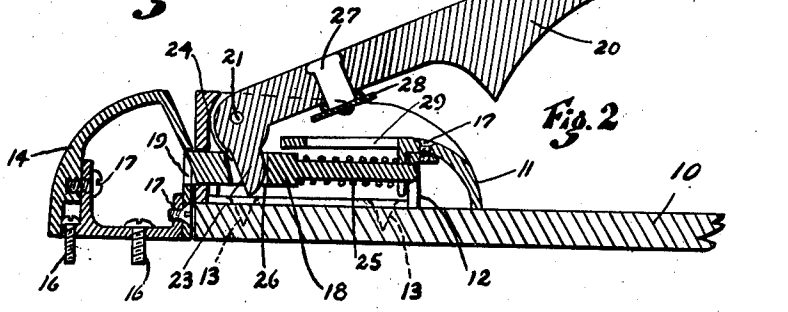


Fig. 2

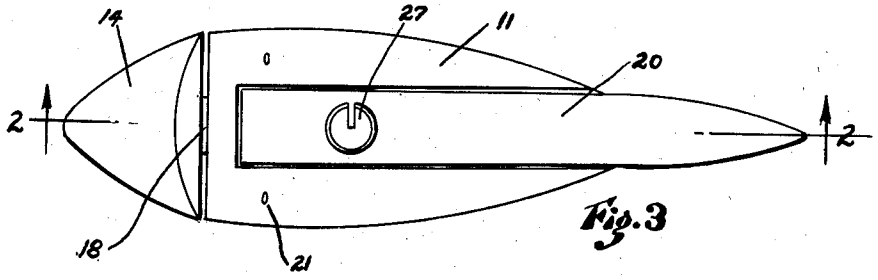


Fig. 3

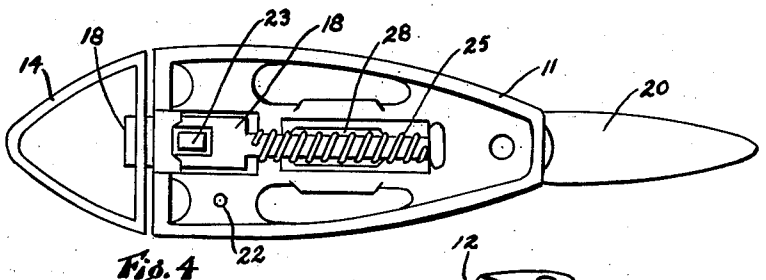


Fig. 4

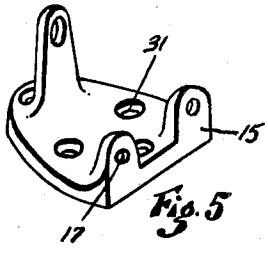


Fig. 5

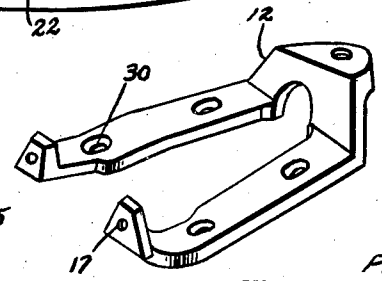


Fig. 6

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UNITED STATES PATENT OFFICE

2,232,020

DOOR LATCH

Paul A. Bernhardt, Milwaukee, Wis.

Application July 15, 1938, Serial No. 219,441

2 Claims. (Cl. 70—145)

My invention relates to a latch adaptable to refrigerator doors or the like.

The object of my invention is to provide a latch that may be mounted on the outer face of a door without having any mounting screws exposed thereby preventing the removal of the latch.

Another object of my invention is to produce a device of the type described that may be so constructed as to incorporate a lock in the handle, the lock being recessed yet readily accessible to the user.

Obviously, a device of this nature can be constructed to produce a very pleasing design, the keeper as well as the latch may be of the same contour so as to add to the beauty of the design. The device as specified may also be easily installed by placing the mounting plates in position onto the door and jamb and the cover plate incorporating the lever and the lock may be attached with only the conventional type of screw driver.

Other and further objects of my invention will become more apparent as the description proceeds when taken in conjunction with the drawing in which

Figure 1 is a cross-sectional view of the device taken at a point 2—2 of Figure 3 showing the latch in a closed position.

Figure 2 is a cross-sectional view of the latch and keeper taken at the line 2—2 of Figure 3 showing the latch in an open position and the lever in a raised position.

Figure 3 is a plan view of the top of the latch and keeper showing the location of the lock in the handle.

Figure 4 is a bottom view of the latch and keeper with the mounting plates removed.

Figure 5 is a perspective view of the mounting plate employed to retain the keeper in position and

Figure 6 is a perspective view of the mounting plate employed to keep the latch in position.

Similar characters of reference indicate corresponding parts throughout the several views and referring now to the same, the character 10 shows a door or the like on which a shell 11 is attached by means of the mounting plate 12 fastened with screws. The mounting plate 12 is attached to the door 10 by means of screws 13.

There is a keeper shell 14 fastened to the body of the refrigerator or the like by means of a mounting plate 15 fastened with the screws 16, the mounting plate and the keeper shell being held in position by means of the screws 17.

The latch shell 11 has a latch bolt 18 mounted therein, the latch bolt 18 extending outward from the shell 11 for entering a slot 19 provided for the purpose in the keeper shell 14. A handle 20 is shown pivoted to the shell 11 by means of a pin 21 which pin is held in position by means of a set screw 22. The handle 20 has a projecting member 23 extending at right angle to it and disposed for engagement with a slot 24 in the latch bolt 18. A resilient member 25 engages the shank portion of the latch bolt 18 and retains the extending portion of the latch bolt 18 engaged with the keeper shell 14. As the handle 20 is raised the projecting member 23 operating in the slot 24 of the latch bolt 18 pushes the latch bolt 18 backward due to frictional contact at the point 26 against the pressure of the resilient member 25 thus permitting the door 10 to be opened.

There is a barrel type lock 27 mounted into the handle 20. This lock has a latch plate 28 passing through an opening 29 in the shell 11 and when the handle 20 is downwardly disposed as shown in Figure 1 the lock 27 permits the latch plate 28 to be placed across the opening 29 thus retaining it in a closed position.

The mounting plates 12 and 15 may be fastened to the refrigerator or the like by means of the screws 14 and 16 through the holes 30 and 31 respectively and the latch shell 11 and the keeper shell 14 may be fastened to the mounting plates 12 and 15 respectively by means of the screws 17 as shown. In this manner the latch and keeper may be readily attached to the refrigerator or the like and the attaching screws are in no way exposed to permit the removal of the lock arrangement.

While I have herein shown and disclosed a single embodiment of my invention it will be manifest to anyone familiar with the art that the invention is susceptible to various changes in its form and minor details of construction as well as in design, shape and contour, and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having thus described my invention what I claim and desire to secure by Letters Patent in the United States is:

1. A device of the character described comprising in combination, a latch shell, a mounting plate positioned within the shell, said shell and mounting plate having aligned apertures for reception of fastening means, a keeper, a mounting plate within the keeper and having apertures for accommodation of fastening means for securing the mounting plate to the keeper, said latch shell having an end in close relationship to an end of

the keeper for concealing certain of the fastening means of the keeper, both of the mounting plates having means for attaching the latch shell and keeper respectively, a latch bolt slidably mounted in said latch shell and cooperable with the keeper in one position, the latch shell being constructed for pivotal mounting of a handle therewithin, the handle being movable to a position close above the fastening means for the latch shell and mounting plate thereof, means on the handle for projecting and retracting the latch bolt, and lock means for locking the latch bolt in its operative position above the fastening means for the latch shell and mounting plate thereof.

2. A device of the character described comprising in combination, a latch shell, a mounting plate positioned within the shell, said shell and mounting plate having aligned apertures for reception of fastening means, a keeper, a mounting plate within the keeper and having apertures for accommodation of fastening means for securing the mounting plate to the keeper, said latch shell having an end in close relationship to an end of the keeper for concealing certain of the fastening means of the keeper, both of the mounting plates having means for attaching the latch shell and keeper respectively, a latch bolt slidably mounted in said shell and cooperable with the keeper in one position, the latch shell being constructed for pivotal mounting of a handle therewithin, the handle being movable to a position closely above the fastening means for the latch shell and mounting plate thereof, said handle having a projecting member disposed at a right angle thereto, said latch bolt having a slot for receiving the projecting member of the handle, a resilient member arranged to urge the latch bolt into engagement with said keeper, a lock mounted in the handle and having means engageable with the latch shell whereby to lock the handle in a position above the fastening means of the latch shell and mounting plate.

PAUL A. BERNHARDT.