Dec. 14, 1965 F. ODEND'HAL 3,223,441

IRREMOVABLE ADJUSTABLE KEEPER FOR A DOOR LATCH

Original Filed Oct. 26, 1961 2 Sheets-Sheet 1

FIG. 1

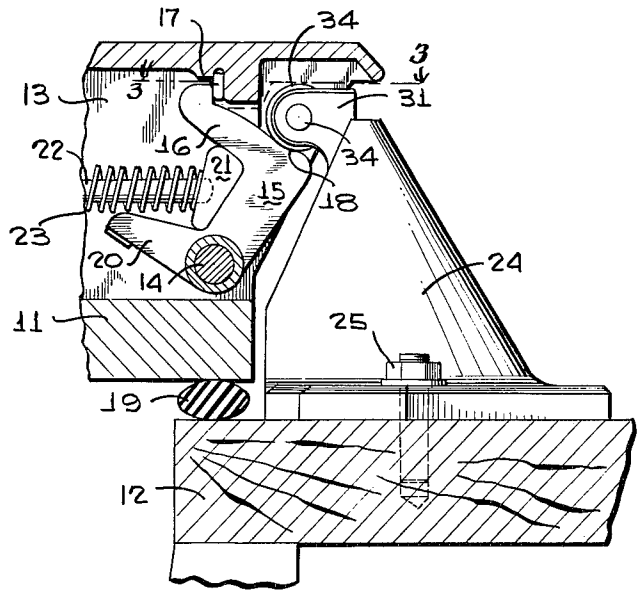
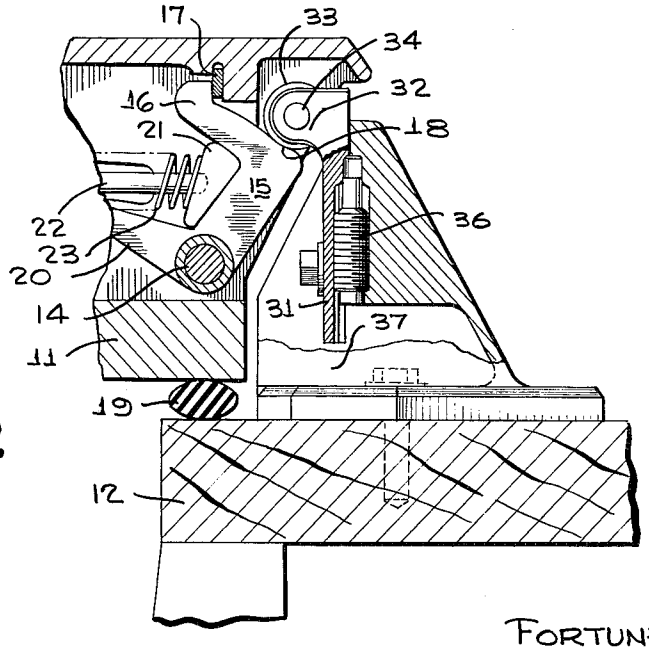


FIG. 2



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Original Filed Oct. 26, 1961 2 Sheets-Sheet 2

FIG. 3

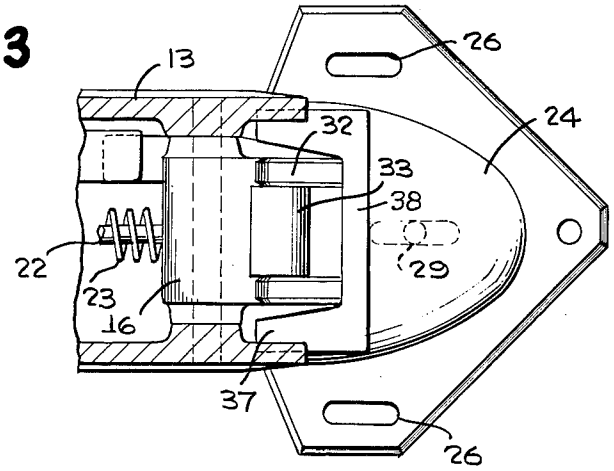
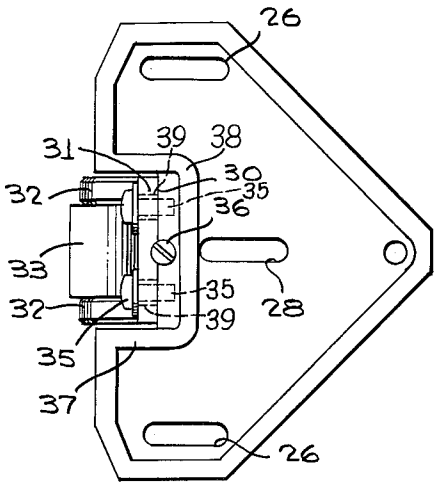


FIG. 4



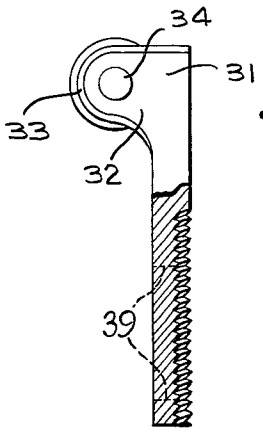


FIG. 5

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3,223,441

IRREMOVABLE ADJUSTABLE KEEPER FOR A DOOR LATCH

Fortune Odend'hal, Hagerstown, Md., assignor to Jamison Cold Storage Door Company, Hagerstown, Md.

Original application Oct. 26, 1961, Ser. No. 147,935. Divided and this application Nov. 23, 1962, Ser. No. 239,552

2 Claims. (Cl. 292—341.18)

The following specification relates to a keeper for a door latch such as is used for securing the door of a cold storage compartment and similar heavy structures.

It is essential that a keeper for a latch of this type must be so mounted on the door jamb or wall as to prevent unauthorized separation of the keeper from the door latch when the latch operating mechanism is secured against retraction. The keeper must be so mounted that any attempt at its dislodgment or separation from the fastener and its latch, will be impossible short of actual destruction. At the same time it is also important to design the keeper so that it is readily adaptable and adjustable to the door fastener. It must meet variations in dimensions. It must also be subject to adjustment to compensate for changes in the position of the door fastener resulting from misalignment or wear.

One of the objects of the invention is to provide means to fasten the keeper on a door jamb secure against unauthorized separation independent of the latch operating mechanism.

A further object of the invention is to provide a concealed irremovable mounting of the keeper on the door jamb.

A still further object of the invention is to provide accurate adjustment toward and away from the face of the door jamb to accommodate variation in dimensions of the door, the latch being used to bind the yieldable seal between the door and its jamb.

Among the objects of the invention is to provide concealed means for carrying out the above adjustment toward and from the face of the door jamb and thereafter bolting the keeper in place from an innerside, secure against unauthorized tampering.

The above and other objects of the invention will be readily understood from the following description of the preferred form as illustrated by way of example on the accompanying drawings in which:

FIGURE 1 is a side elevation of the keeper with associated parts of the latch in cross-section;

FIGURE 2 is a median vertical section of the same;

FIGURE 3 is a plan view of the keeper with latch parts shown in horizontal section on the line 3—3 of FIGURE 1;

FIGURE 4 is a bottom plan view of the keeper, and

FIGURE 5 is a side elevation partly in section of the bracket and roller.

Briefly considered, the invention consists in a novel form of keeper or latch strike for the door fastener of a door of massive construction. Such doors are of particular utility in cold storage compartments and like structures where it is important to insure maintenance of a tight fit. This is essential to prevent reduction in the degree of refrigeration. A keeper for this purpose is mounted on the door jamb opposite the fastener on the door. The keeper is secured to the door jamb or wall of the compartment with a concealed fastening. This insures the keeper against dislodgment when the fastener is otherwise locked in closed position. In view of the variations in thickness of the door and proportions of the fastener, as well as alteration in the thickness of the sealing stripe around the door opening, some adjustment in the position of the keeper is necessary. This, however,

must be accomplished by making an adjustment of the keeper as well as fastening in position, but maintaining such adjustment and fastening features well concealed from unauthorized tampering.

The preferred form of the invention is illustrated by way of example on the accompanying drawings and in association with a door fastener of known type. The keeper is illustrated as associated with the fastener disclosed in the copending application of Fortune Odend'hal, filed October 26, 1961, Serial No. 147,935, now Patent No. 3,149,867, of which this application is a division.

The fastener is mounted upon the door **11**, while the keeper is mounted upon the door jamb **12**, or corresponding part of the wall of the refrigerated compartment.

The fastener casing **13** is firmly attached to the free side edge of the door which it overhangs, as shown in FIGURE 1. Within the casing a transverse pivot pin **14** extends across the front opening of the casing **13**. This pivot pin forms a journal for the loosely mounted latch member **15**. The latch member **15** has a laterally projecting arm **16**. This arm presses against a cushion stop **17** in the inner surface of the casing above the pivot pin **14**.

The upper surface of the latch **15** is slightly recessed as shown at **18**, to receive the roller of the keeper and to hold it, except when the opening movement of the door slightly compresses the sealing gasket **19**, mounted on the edge of the doorway.

The opposite end of the latch **15** has a lateral foot or extension **20** by which the latch is retracted.

A removable block **21** is fitted into the back of the latch **15**. This block **21** forms a seat for a rod **22**, the opposite end of which is suitably anchored within the casing by means not shown.

A compression coil spring **23** extending from a stop on the rod **22** to the block **21**, serves to hold the latch **15** in extended, closed position. This spring is compressed and the rod **22** retracted in the opening movement of the latch **15**.

The keeper **24** is in the form of a hollow metal casting held on the face of the door jamb **12** opposite the fastener by screws **25**, passing through a plurality of slots **26** in the base of the keeper. The distance of the keeper **24** from the edge of the door **11** can therefore be adjustably set as desired. A screw **25** through each slot **26** will then maintain the keeper in adjusted position.

In order to prevent unauthorized dislodgment of the keeper **24** by loosening of the screws **25**, concealed means is provided to additionally fasten the keeper in the adjusted position. This consists of a median slot **28** in the base of the keeper. A bolt or screw **29** can be fastened from within the hollow space of the keeper **24** into the adjacent face of the jamb **12**. When the locked fastener is in position opposite the keeper **24**, no access is possible to the bolt **29**. The keeper is therefore held in position irrespective of the removal of the screws **25**.

The front face **30** on the standard **38** of the keeper is machined in a plane perpendicular to the wall and the base. It serves to hold a bracket **31**. This bracket has forwardly projecting ears **32**, between which a roller **33** is carrier on a pivot pin **34**. The roller **33** is faced with slightly resilient material, so that it will spring into the recess **18** of the latch **15**, as shown in FIGURE 1.

The rear face of the bracket **31** and the front face **30** of the standard **38** of the keeper are bolted together by means of bolts **35**. The adjoining portions are then drilled on an axis slightly back of the plane between the two parts. This hole is then tapped to provide a threaded recess for a machine screw thread.

A headless screw **36** having a similar machine screw thread, can then be screwed into the joint opening in the bracket and the front face.

The screw **36** is held in the threaded recess by interengagement of the threads on the screw and the threads in the threaded recess. As is shown in FIGURE 4, more than one-half of the circumference of the screw **36** is disposed within that portion of the threaded recess which is formed in the front face **30** of the keeper **24**. The bracket **31** may be adjusted relative to the keeper **24** and threaded screw **36** by loosening the bolts **35** to permit movement of the bracket **31** relative thereto. As is shown in FIGURES 4 and 5, the bracket **31** is provided with an elongated vertically disposed slot **39** for each of the bolts **35**. The use of such an elongated slot and bolt for providing adjustability between two members is known in the art as evidenced by the patent to Schmidgall, Patent No. 1,614,046.

The inner area of the keeper **24** is directly opposite the fastener casing and the latch **15**. Thus the bolt **29** is inaccessible so long as the fastener is in closed position. This is true regardless of the possibility that unauthorized persons may loosen the screws **25**.

In adjusting the position of the bracket and roller toward and away from the face of the jamb **12**, the fastener is first released, and the door **11** opened. With the bolts **35** loosened, the bracket **31** may be precisely adjusted by moving it to a new position on screw **36**, and the bolts **35** are then retightened to maintain the bracket **31** in adjusted position on the keeper **24** and threaded screw **36**. This will establish a precise initial adjustment. It will also permit subsequent readjustment to compensate for wear, sagging of the door or compression of the sealing gasket **19**.

It will be noted that the sides of the keeper **24** are projected forwardly as at **37**. Thus they terminate slightly spaced from the front edges of the casing **13** (FIGURES 1 and 2). As a result, the bolts **35** are shielded from view. It is also impossible to apply a wrench to the bolts **35**. This is a further means of preventing release of the

roller **33** from its locking engagement on the latch member **15**.

Numerous minor changes in structure and material can be carried out within the scope of the invention as defined in the following claims.

What I claim is:

1. A keeper for a latch comprising a body member having a base and a standard having a front face perpendicular to the base, a bracket adjustably mounted on said standard, a latch engaging member on the bracket, said bracket having a rear face, means for adjustably fastening said bracket to said standard to hold said front face and said rear face in engagement with each other and to define a plane, a threaded recess formed partially in said bracket and partially in said standard and having a central longitudinal axis offset from said plane and parallel thereto, and a screw threaded in said recess, the threads of the recess cooperating with the threads of the screw for precluding relative movement between said bracket and said standard when the face of said bracket and standard are held in engagement by said fastening means.

2. A keeper as defined in claim **1** wherein said threaded recess is closed at the end thereof remote from said base, and means for fastening said base to a jamb.

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