June 5, 1956 M. LOEB 2,749,163

LATCHING DEVICE

Filed April 28, 1952

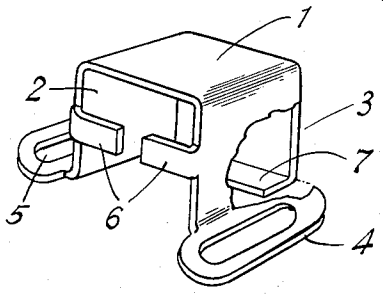


FIG. 1

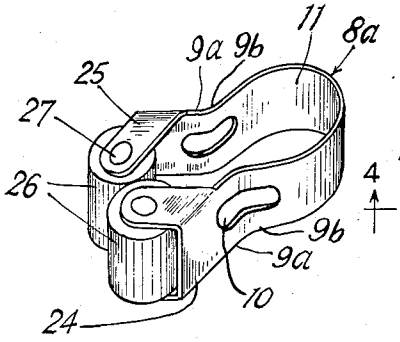


FIG. 2

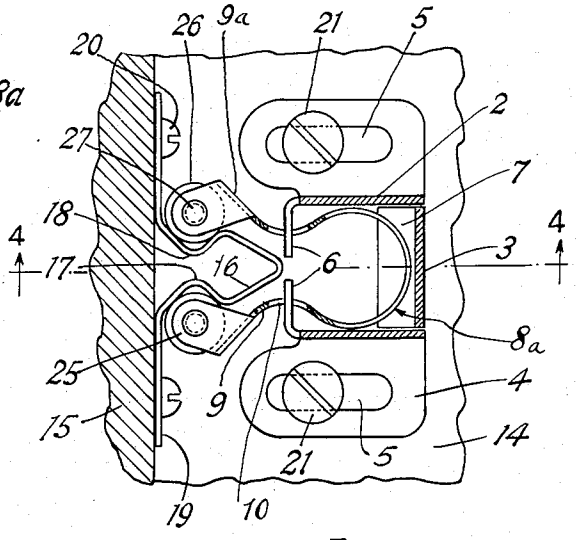


FIG. 3

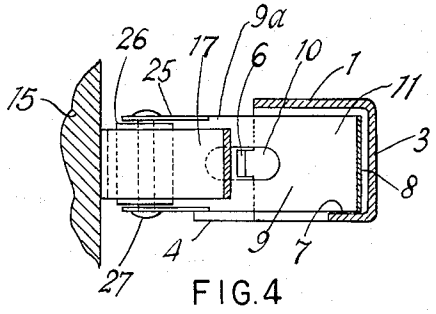


FIG. 4

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LATCHING DEVICE

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1 Claim. (Cl. 292—17)

My invention is an improved latching device, particularly a catch for releasably securing a door or other movable member.

An object of this invention is to provide a catch comprising yielding parts designed to be easily mounted for tight retaining engagement when the door is closed and ready disengagement when the door is to be opened.

The preferred embodiment of the device presents a resilient member having a pair of arms side by side in a casing that encloses the catch and fully supports it; the arms having their outer ends adapted to grip a projection or knob with a great deal of friction and thus hold the projection tightly and firmly; and yet the device requires only a smart pull to disconnect said projection from said arms.

The invention is clearly described in the following specification, and the drawings illustrate the structure and arrangement of parts. But this disclosure is explanatory only and changes may be made in minor respects without altering or omitting any of the essential novel features which characterize the invention as it is defined in the appended claim.

On the drawings:

Figure 1 is a perspective view of the casing for the principal parts of the catch or latch device.

Figure 2 is a perspective view of the gripping member.

Figure 3 is a top view partly in section of the device in operative position; and

Figure 4 is a side view with the parts in section, on line 4—4 in Figure 3.

The casing has a top **1** with sides **2** and a back **3**. The bottom is open, and the sides are bent outward at the bottom to present extensions **4** with openings, such as slots **5**, to receive screws for attaching it to a fixed support, such as a fixed part of a cabinet with an opening for a door. The front edges of the sides have inturned projections **6** extending across the open front. The back **3** is inturned adjacent one edge to form an inward projecting transverse ledge **7**, parallel to the top **1**, in the plane of the extensions **4**.

Within the casing is a stiff but resilient metallic gripping member or strip **8***a* bent double and having arms **9***a* side by side. Each arm has a hole **10** to receive one of the projections **6**, that are bent in turn and inserted. The rounded junction **11** of the arms is not attached to the casing but can shift sideways, being disposed snugly between the top **1** and ledge **7**. See Figure 4. The arms **9***a* are sprung outward so as to keep the projections **6** in the holes **10** and the ends of the arms separated.

The casing **1** is attached for example, to a member **14** that cooperates with a member **15**. Either member may be mounted to have pivotal or sliding movement while the other is stationary with respect to the first. On the other member **15**, which may be a door, for example, is a knob or head **16** with a reduced neck **17**. When the door **15** is closed the knob **16** is forced between the arms

9*a* of the member **8***a*, which yield and then grip the neck **17** between them. The door is thus held shut. The knob **16** can of course be fixed in the cabinet and the catch fixed to a suitable point on the door; also the catch **8***a* and head **16** can be utilized to keep a door open. Then the knob will be on the outer face of the door and the catch on a wall or other support to grip the head **16** in the same way; or the head and catch can be reversed with the knob on the wall and the catch on the door with the same result. The knob **16** is made of a strip of metal bent at the middle to make the knob or head wedge-shaped with identations **18** for the neck and the end portions **19** of the strip are affixed to the member **15** by screws **20**. The casing is made fast to the member **14** in correct operative position by screws **21** in the slots **5**.

In Figures 2 and 3 the gripping member **8***a* is shown with diverging end portions **9***a* and carved connecting portions **9***b* in which are the apertures **10**. Each of the extremities **24** of the portions **9***a* has a pair of overturned projections **25**; and rotatably mounted between each pair is a rubber roller **26** on a pin **27**. When the head **16** penetrates the member **8***a*, the rollers are moved apart and when the head is past the rollers, the latter seat in the indentations **18**. The head is now gripped tightly but the rollers can turn when the head enters and is withdrawn.

The projections **6** fit the holes **10** loosely so that the round end **11** of the member **8***a* is free to move sideways in the casing between the sides **2**. Also the casing is a bit wider than the member **8***a*, which is thus free for self-adjustment if the head **16** is not in central position with respect to the arms **9***a*.

The catch thus serves fully all the purposes for which the improvement is intended.

Having described my invention, what I believe to be new is:

A latching device comprising a casing having a closed top, sides and back, but open at the bottom and at its front end, a projection on each side at the front end, said projections extending toward each other, a resilient U-shaped one-piece gripping member having arms united at one end with an opening in each, said projections being loosely received in said openings, the junction of said arms being rounded, and disposed in the casing free to move laterally with respect to said casing, said arms having diverging end portions projecting from the front end of the casing, and curved portions connecting the end portions to the junction, said curved portions bearing said openings, the sides having outward projecting extensions at the lower edges and the back having an inside ledge under said member parallel to said top and substantially in the plane of said extensions, said top, sides, back and ledge forming a pocket in which the rounded junction of said arms is disposed, said arms each having a pair of projections on the edges of the diverging portions, the pairs extending towards each other, a pin mounted in each pair, and a yielding roller on each of said pins between said last-named projections.

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