Nov. 22, 1949 C. M. RELTON 2,489,154

MAGNETIC CLOSURE FASTENER

Filed Jan. 2, 1948

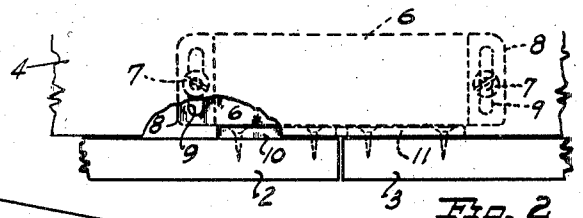


Fig. 2

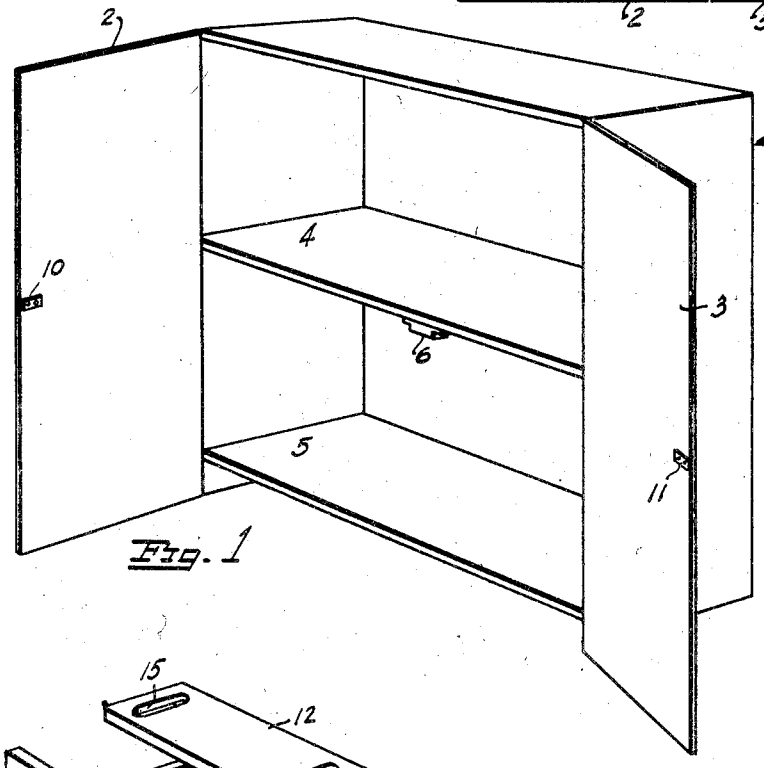


Fig. 1

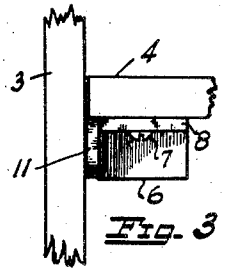


Fig. 3

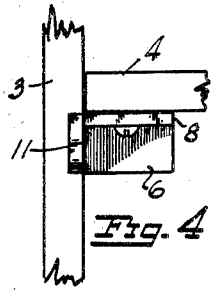


Fig. 4

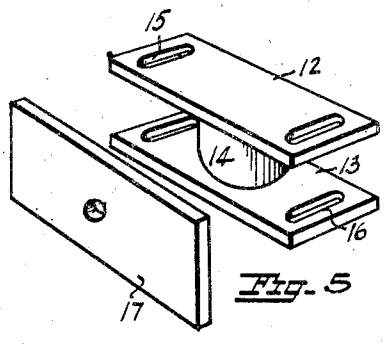


Fig. 5

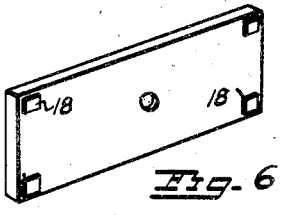


Fig. 6

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MAGNETIC CLOSURE FASTENER

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1 Claim. (Cl. 292—70)

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This invention relates to improvements in door and closure fasteners.

It is one of the principal objects of the invention to provide a door fastener of a magnetic type to replace the various types of mechanical and spring actuated door latches now commonly used, for example on built-in cabinets and which frequently become out of adjustment and fail to maintain the doors in a closed position.

My new and improved fastener is of simple and efficient construction consisting of only two parts in a one door cabinet and three parts in a two door cabinet. One part consisting of a permanent magnet and the other an armature. In a two-door cabinet two armatures are provided for a single magnet.

A still further object of the invention is the provision of a fastener of this character which is readily adaptable to all types of closures including doors, windows, and the like. The invention is also advantageously useful on doors of hospital rooms, sick rooms, and the like, since there are no movable parts operable by door knobs, and the like, which are noisy in operation and disturbing to a patient.

A still further object of the invention is the provision of a magnetic fastener of the character described whose component parts are readily adaptable to closures and their frames in a wide range of adjustable positions.

These and other objects will appear as my invention is more fully hereinafter described in the following specification, illustrated in the accompanying drawing and finally pointed out in the appended claim.

In the drawing:

Figure 1 is a perspective view of a cabinet showing my new and improved fastener applied to the doors and one of the shelves of the cabinet.

Figure 2 is an enlarged fragmentary plan view of one edge of a shelf showing a magnet adjustably mounted to the underside thereof, and an armature secured to each door of the cabinet for operative engagement with the magnet for holding the doors in a closed position.

Figure 3 is an end elevation of Figure 2 as viewed from the right hand side thereof.

Figure 4 is a view similar to Figure 3 showing the armature embedded in the door.

Figure 5 is a composite perspective view of a modified form of permanent magnet and armature therefor.

Fig. 6 is a perspective view of the armature showing shock absorbing means on the face thereof.

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Referring now more particularly to the drawing:

In Figure 1, I have shown a cabinet, generally indicated at 1, provided with doors 2 and 3 and having any number of shelves 4 and 5 on its interior. It is to be understood that I do not wish to be limited to any particular type of cabinet, the number of doors, or whether it is a built-in cabinet, or an individual portable type, since obviously the invention is applicable to any type of door or closure and its supporting frame.

To either the bottom or top side of one of the shelves, I secure a magnet generally indicated at 6 by means of wood screws, or the like, indicated at 7. The magnet consists of a solid block of metal formed with laterally extending flanges 8 which are slotted in the direction of their length as indicated at 9 for passage of the screws therethrough. By means of the slots the magnet may be adjustably positioned with respect to the outside edge of the shelf or any other support, as shown in Figures 3 and 4. In cabinets provided with double doors as shown in Figure 1, I provide each door with an armature as indicated at 10 and 11 in position to contact the permanent magnet and to be held thereagainst by magnetic forces when the doors are closed. When two armatures are used the magnet is of sufficient length to accommodate both of them. When however, a single armature is used on a single door the magnet may, of course, be reduced in length.

In Figure 5, I have illustrated a modified form of magnet consisting of a pair of parallel plates 12 and 13 formed integral with or secured to a spacer block 14 in the form of a cylindrical magnet core. The ends of both plates are slotted as at 15 and 16 to adjustably accommodate fastening screws as in the form of the invention illustrated in Figures 1 to 4. The armature 17 is the same as that shown in the other form of the invention and engages with the parallel side edges of the plates 12 and 13.

To eliminate any noise resulting from the armature striking the magnet, I may provide each corner of the contacting face of the armature with a block of thin rubber or other resilient material such as indicated at 18 in Figure 6.

While I have shown a particular form of embodiment of my invention, I am aware that many minor changese therein will readily suggest themselves to others skilled in the art without departing from the spirit and scope of the invention. Having thus described the invention, what I claim as new and desire to protect by Letters Patent is:

A fastener for a closure comprising a permanent magnet comprising a pair of spaced apart plates slotted at both of their ends for adjustable mounting to a support for the closure, an armature in the form of a rectangular plate mounted on the closure and movable thereby into contact with said magnet, and resilient shock absorbing means secured to each corner of the armature and adapted for contact with said magnet.

CYRIL M. RELTON.

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The following references are of record in the file of this patent:

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