Jan. 29, 1929. 1,700,620

J. YUNEK

GARAGE DOOR LATCH

Filed Oct. 21, 1927

Fig. 1.

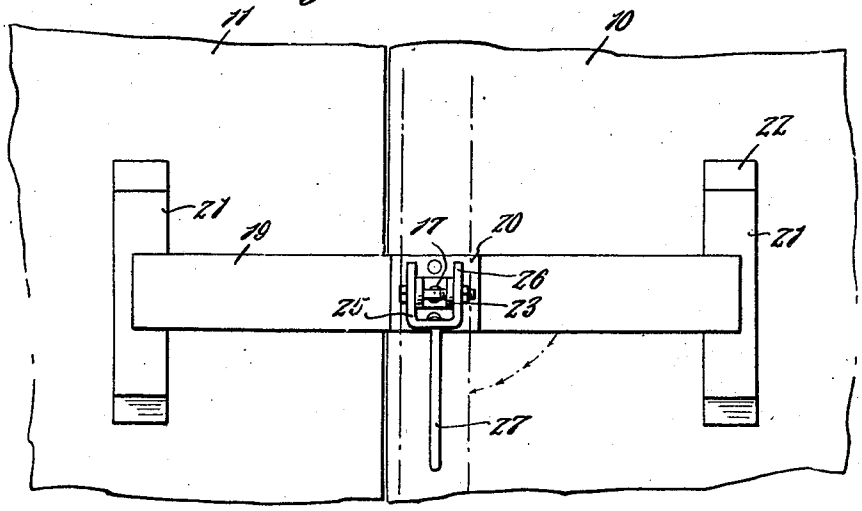
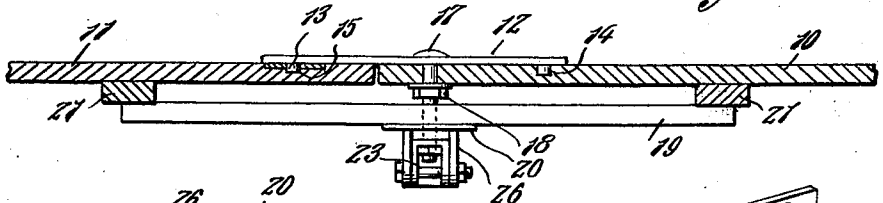


Fig. 2.



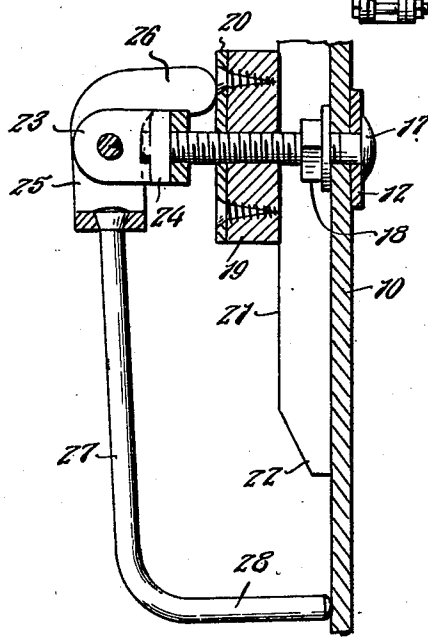


Fig. 3.



Fig. 5.

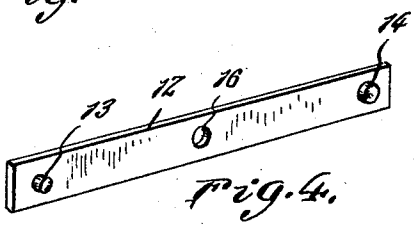


Fig. 4.

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UNITED STATES PATENT OFFICE.

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GARAGE-DOOR LATCH.

Application filed October 21, 1927. Serial No. 227,778.

This invention relates to latches primarily adapted for use upon double swinging doors.

An object of the invention comprehends cross members adapted to be extended across the meeting portions of the doors.

Another object of the invention contemplates a connecting member for the cross members.

A further object embodies a latch means adapted for connection with the connecting means to draw the cross members toward each other across the meeting portions of the doors when the same are called into use.

More specifically stated the latch means is provided with an operating lever to tighten and release the cross members.

With the above and other objects in view, the invention further consists of the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the appended claims.

In the drawing:

Figure 1 is an elevation of the invention as applied upon the inner sides of the doors.

Figure 2 is a horizontal sectional view taken through the meeting portions of the doors when the invention is applied and in use.

Figure 3 is a vertical sectional view taken through the invention per se, while in active use.

Figure 4 is a perspective of one of the cross members.

Figure 5 is a perspective view of a latch plate.

Referring to the drawing in detail, wherein like characters of reference denote corresponding parts, the reference characters 10 and 11 indicate companion swinging doors adapted to dispose the outermost edges thereof in juxtaposition when shifted to closed positions.

The invention is primarily designed for use in the latching of double swinging garage doors upon the inside whereas the garage is either built within the basement of a house or provided with a separate entrance.

In carrying out the invention, I provide a cross member 12 and studs 13 and 14 inwardly projected upon the inner face thereof. The stud 13 being adapted for reception within an apertured plate member 15 carried upon the outer surface of the door 11. The stud 14 being positioned within a recess in the outer surface of the door 10.

As illustrated in Figure 2 of the drawing, the cross member 12 is extended across the adjacent portions of the doors and has passed through an elongated opening 16, a bolt member 17 which is extended horizontally of and through the door 10. A nut 18 carried by the bolt 17 is adapted to engage the inner side of the door 10 to rigidly hold the cross member 12 in the position shown.

A substantially elongated cross member 19 provided with a wear plate 20 at an appropriate point in the length thereof and upon its inner side is adapted to receive the bolt member 17 therethrough. The ends of the cross member 19 are adapted to engage the inner surface of spacing plates 21 carried upon the inner surfaces of both doors and having beveled extremities 22 to guide the ends of the cross member 19 while in use to occupy the position shown in Figure 1 of the drawing when rotated in either clockwise or counter-clockwise movements upon the bolt member 17.

A U-shaped yoke 23 carried upon the innermost end of the bolt member 17 immediately behind a nut 24, is in effect, adapted to function after the manner of a socket wrench to tighten the nut upon the bolt member.

A latch yoke 25 having pivotal connection with the ears of the U-shaped yoke 23 is provided with spaced parallel cam portions 26 adapted to engage the wear plate 20 carried upon the cross member 19 to spring the latter toward the inner surfaces or portions of the doors. An operating lever 27 carried by the latch yoke 25 is adapted to effect such operation and with the aid of an offset 28 carried upon the free end thereof, engageable with the inner side of the door 10, the cam portions 26 may be held at dead center whereby the cross members will be rigidly retained against displacement.

Obviously, the operating lever 27, by the aid of the offset portion 28 carried thereby, may be operated as a crank in conjunction with the yokes to rotate the nut 24 upon the bolt member 17 to tighten or loosen the same in the adjusting of the latch means.

It is thought that the invention provides an exceedingly useful and advantageous form of latch for use upon doors of the character described and which will be highly appreciated when installed.

The particular aperture in the plate member 15 is shown as being elongated in Figure 5 of the drawing to facilitate operation of

the invention under all conditions, and principally when the doors have sagged subsequent to the application of the invention.

The invention is susceptible of various changes in its form, proportions and minor details of construction, and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having thus described the invention, what is claimed is:—

1. A latch device for double swinging doors comprising a cross member extended across the adjacent portions thereof, spacing plates carried upon the inner sides of each of the doors, a companion cross member having the extremities thereof reposing upon said spacing plates, a bolt member passed through one of the doors and both of the cross members, and means carried by the bolt member adapted to relatively contract the cross members to yieldingly retain the same against displacement.

2. A latch device for double swinging doors comprising a cross member provided with stud members upon the inner side and adjacent the ends thereof adapted for reception within recesses in the outer portions of each of the doors, spacing plates carried upon the inner sides of each of the doors, a companion cross member having connection at its ends with the spacing plates, a bolt establishing connection between the cross members, a nut threaded upon the innermost end of the bolt member, the yoke member carried by the bolt member adapted for connection with the nut rotating the same upon the bolt, and a latch yoke having pivotal connection with the first mentioned yoke being provided with cam portions engageable with the inner side of the companion cross member for relatively contracting the cross members at the meeting portions of the doors.

3. A latch device for double swinging doors comprising a cross member having stud members inwardly projected upon the inner side thereof and adapted for reception within recesses upon the outer surfaces of the doors, spacing plates carried upon the inner side of each of the doors, a bolt member passed through one of the doors and cross member, a companion cross member pivotally mounted upon the bolt and having connection at its ends with the spacing plates, a wear plate carried upon the inner side of the companion cross member, a U-shaped yoke slidably mounted upon the bolt and adapted for traveling movement thereon when threading a nut carried thereby upon said bolt, a latch yoke having pivotal connection with the U-shaped yoke, cam portions projected from the ends of the latch yoke and adapted to engage the wear plate at dead center to draw the bolt through the companion cross member, and an operating lever carried by the latch yoke.

4. A latch device for double swinging doors comprising a cross member having stud members inwardly projected upon the inner side thereof and adapted for reception within recesses upon the outer surface of the doors, spacing plates carried upon the inner side of each of the doors, a bolt member passed through one of the doors and cross member, a companion cross member pivotally mounted upon the bolt and having connection at its ends with the spacing plates, a wear plate carried upon the inner side of the companion cross member, a U-shaped yoke slidably mounted upon the bolt and adapted for traveling movement thereon when threading a nut carried thereby upon said bolt, a latch yoke having pivotal connection with the U-shaped yoke, cam portions projected from the ends of the latch yoke and adapted to engage the wear plate at dead center to draw the bolt through the companion cross member, an operating lever carried by the latch yoke, and an offset portion carried upon the operating lever adapted to engage the inner side of one of the doors to permit positioning of the cam portions at dead center and to prevent displacement of the same in an opposite direction.

In testimony whereof I affix my signature.

JOSEPH YUNEK.