Sept. 29, 1936. G. HALINKA 2,055,688

AUTOMOBILE DOOR LOCK

Filed March 22, 1935 2 Sheets-Sheet 1

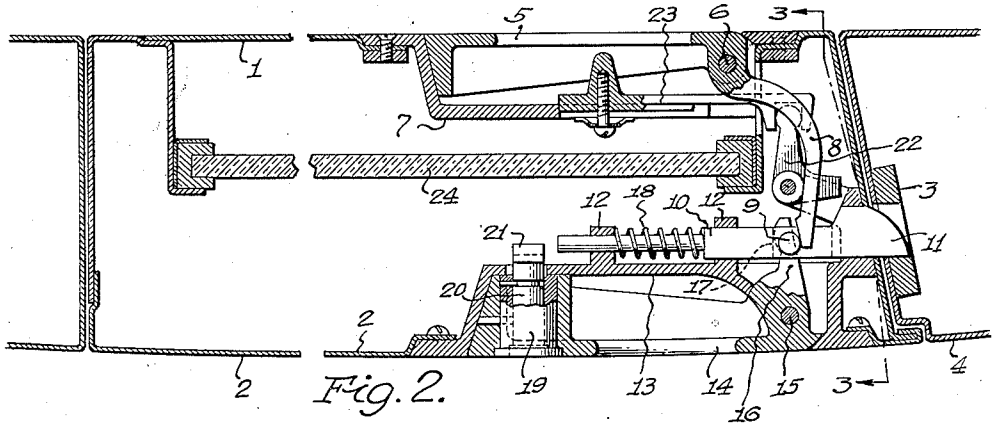


Fig. 2.

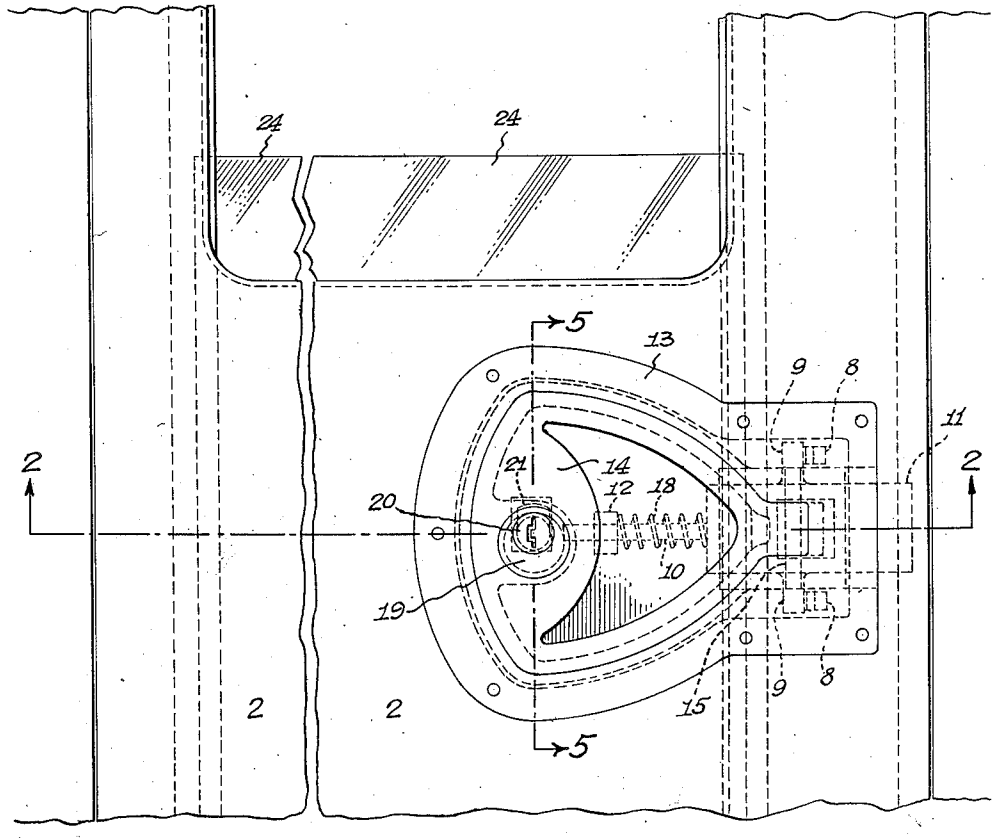


Fig. 1.

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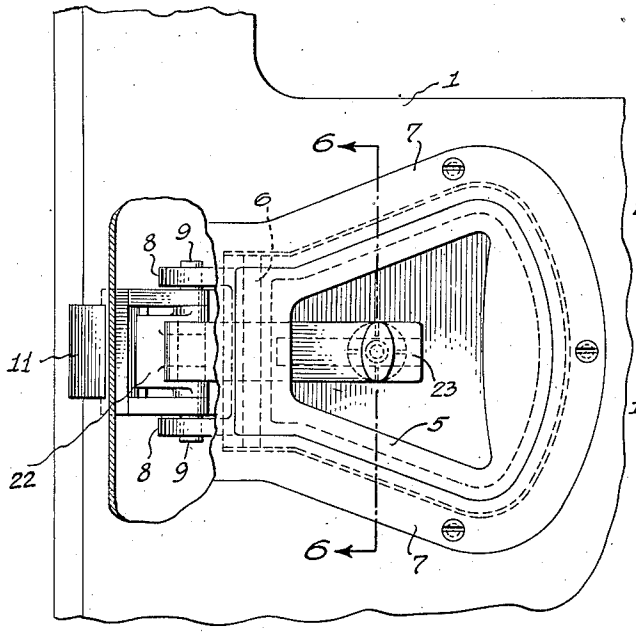


Fig. 4.

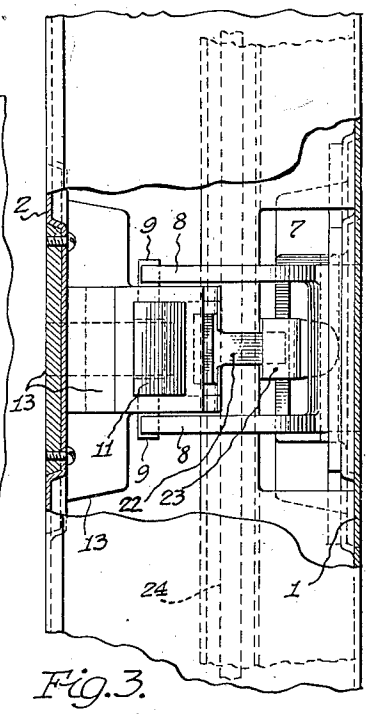


Fig. 3.

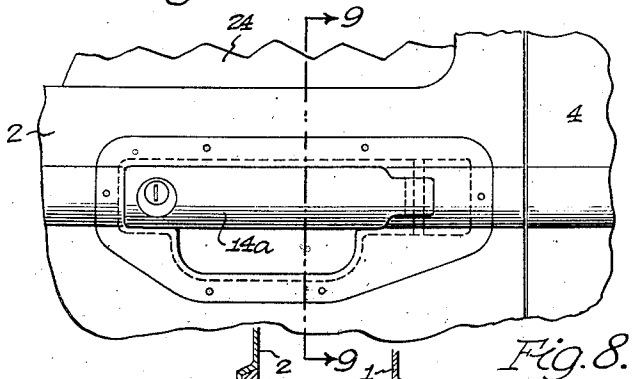


Fig. 8.

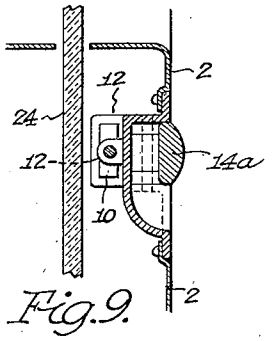


Fig. 9.

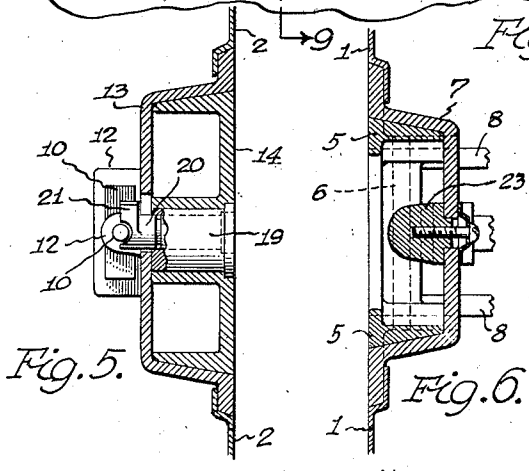


Fig. 5.

Fig. 6.

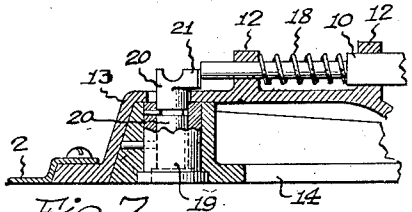


Fig. 7.

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Patented Sept. 29, 1936 2,055,688

UNITED STATES PATENT OFFICE

2,055,688

AUTOMOBILE DOOR LOCK

George Halinka, Detroit, Mich., assignor of one-fourth to Fred P. Bock, Detroit, Mich.

Application March 22, 1935, Serial No. 12,358

1 Claim. (Cl. 292—153)

This invention relates to door lock mechanisms of particular adaptability to vehicles wherein the requirements of construction are limited by the width and thickness dimensions of the door post and the presence of sliding windows.

The trend in automotive construction is toward smaller door pillars. The space heretofore available for the lock mechanism is not only restricted in size but must now accommodate the window pane in such manner that the pane extends into the path of the mechanism. It is therefore an object of this invention to provide a lock mechanism which will interfit with and actually straddle the edge of the pane and which can be installed compactly in the remaining space.

Other objects and advantages will become hereinafter more fully apparent as reference is had to the accompanying drawings wherein my invention is illustrated and in which—

Figure 1 is a broken section of a door having my improved latch mechanism shown in elevation;

Fig. 2 is a horizontal section taken along the lines 2—2 of Figure 1;

Fig. 3 is a view taken along the line 3—3 of Figure 2;

Fig. 4 is a plan view of the interior handle partially broken away to show the hinge thereof;

Fig. 5 is a section along the line 5—5 of Figure 1;

Fig. 6 is a section taken along the line 6—6 of Fig. 4;

Fig. 7 is a detail section similar to Figure 2 showing the lock cylinder in locking position;

Fig. 8 is a plan view of a modified form of exterior handle, and

Fig. 9 is a section taken along the line 9—9 of Figure 8.

1 and 2 refer to the interior and exterior walls respectively of a door having a lock and latch mechanism therebetween for engagement with a keeper member 3 carried by a door post 4. A handle 5 is pivotally mounted at 6 in a casting 7 secured to the inner wall 1 in such way that when the handle is in door latching position the outer surface of the handle is substantially flush with the wall 1. Integral with the handle 5 is a bent arm 8 the end of which has sliding engagement with a pin 9 fixed in a bolt 10 having a latch member 11 integral therewith. The bolt is slidably mounted in guides 12 formed on the casting 13 in which the exterior handle 14 is pivotally mounted at 15.

Integral with the handle 14 is an arm 16 adapted to engage a shoulder 17 of the bolt 10 for retracting actuation thereof upon outward swinging movement of the handle 14. A spring 18 opposes retraction of the bolt 10 and returns it to latching position upon release of either handle 5 or 14.

The handle 14 is also preferably embedded in the door so that the outer surface thereof is substantially flush with the wall 2.

A lock 19 is carried by the handle 14 near its outer end. The cylinder 20 of the lock extends inwardly of the casting 13 and has an extension 21 adapted for rotation to a position directly abutting the end of the bolt 10 to oppose retraction thereof. The extension 21 also acts to directly oppose withdrawal of the handle 14 and lock 19 from the casting 12 as best seen in Fig. 7.

Pivotally mounted within the door is a bell crank 22 having one end adapted for rotation to a point directly opposing withdrawal of the bolt 10. The bell crank 22 is actuated by a push rod 23 from a point within the contour of the handle 5.

It will be seen that the pane of glass 24 interfits with the locking mechanism and that the handles 5 and 14 reside adjacent opposite surfaces thereof.

The modification shown in Figures 8 and 9 is similar to that previously described with the exception of the handle 14a. In this form the handle 14a has a rounded outward surface so that its edges all merge into the contour of the body. This handle preferably resides horizontally so that the palm of the hand is upward when gripping it for pivotal opening.

What I claim is:—

A door lock mechanism for a hollow vehicle door having a window pane slidable therein with the edge of said pane extending into close proximity to an edge of said door, said mechanism comprising a bracket mounted on a wall of said door on one side of said pane, a latch bolt slidably supported by said bracket and normally projecting through said edge of said door, said bracket being adapted to support a handle for actuating said latch bolt, a bracket mounted on the opposite wall of said door and on the opposite side of said pane, the second bracket being adapted to support a handle for actuating said latch bolt, said latch bolt having a projecting element thereupon, a bell crank pivotally mounted in the space between the edge of said pane and said edge of said door, said bell crank being adapted to be moved to a position where one end thereof engages said projecting element and directly opposes movement of said latch bolt, and a push rod mounted on the second named bracket and connected to the other end of said bell crank for moving the same.

GEORGE HALINKA.