May 10, 1932. M. W. MOESTA 1,857,513

DOOR LATCH

Filed July 7, 1925

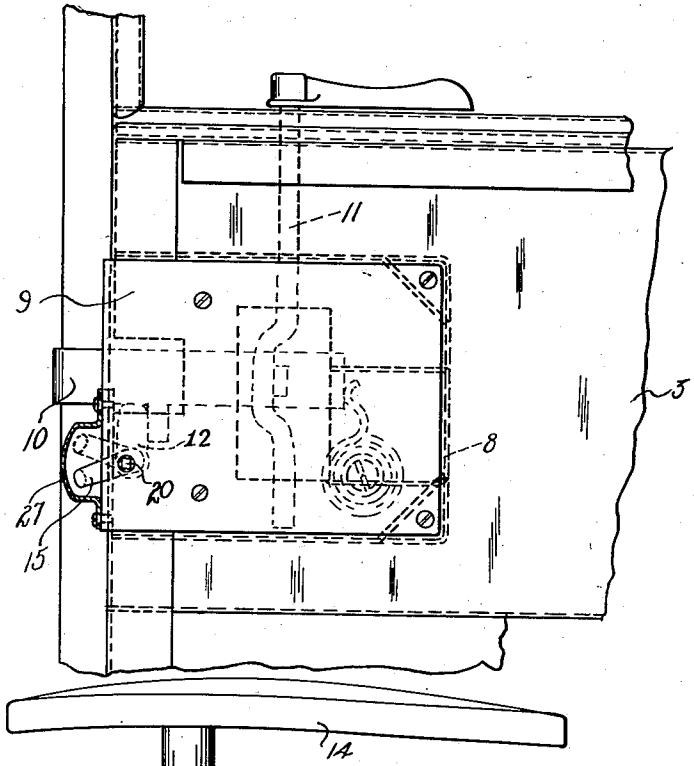

Fig. 1

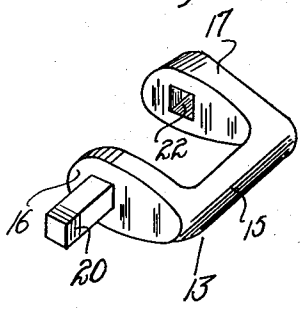

Fig. 3

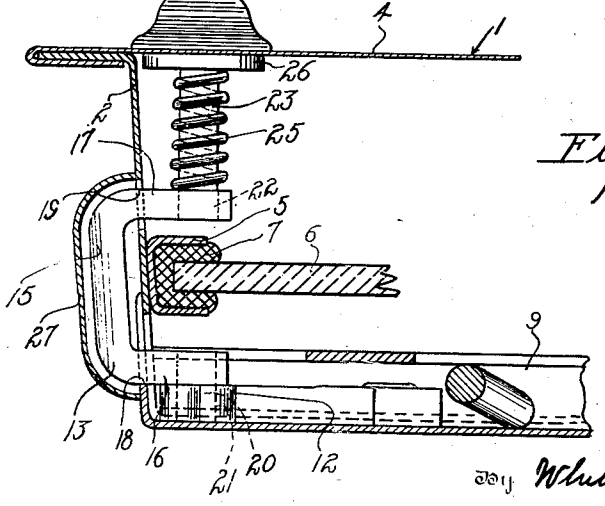

Fig. 2

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UNITED STATES PATENT OFFICE

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DOOR LATCH

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This invention relates generally to latches designed particularly for use with vehicle doors and consists of certain novel features of construction, combinations and arrangements of parts as will be more fully described and particularly pointed out in the appended claims.

Figure 1 is a fragmentary side elevation of a door with the latch mechanism embodying my invention applied thereto.

Figure 2 is an enlarged horizontal sectional view through the latch.

Figure 3 is a detail perspective view of the link.

Referring now to the drawings, the numeral 1 designates a door, preferably of a vehicle body, having a pillar 2 that is connected at its inner and outer edges to suitable sheet metal panels 3 and 4 respectively and that supports a channel-shaped strip 5 which constitutes a runway for a vertically movable glass window panel 6. As shown, the pillar 2 is preferably constructed of sheet metal and is substantially L-shaped in cross section, while the channel-shaped strip 5 is preferably secured directly to the inner face of the pillar and holds a suitable felt guide 7 for the window panel 6.

Mounted upon the inner panel 3, preferably within a depressed portion 8 thereof, is a standard latch 9 having a latching bolt 10 which is adapted to engage a suitable keeper (not shown) on a door jamb when the door is closed. Any suitable means such as the spindle 11 and roll-back 12 may be employed for retracting the bolt 10 against the tension of a suitable spring (not shown) for normally holding the bolt in projected position.

In order that the bolt 10 may be operated from the outside of the door without interfering with the vertical movement of the glass panel 6, I preferably provide a U-shaped link 13 that is adapted to be operated by a suitable handle 14 for actuating the roll-back 12. As shown, the base 15 of the U-shaped link is preferably disposed upon the outer face of the pillar 2, while the arms 16 and 17 respectively extend inwardly through suitable slots 18 and 19 respectively upon opposite sides of the channel-shaped runway 5.

It will be noted that the U-shaped link is a one-piece construction having arms 16 and 17 integral with the base 15 extending therebetween. The inner arm 16 is preferably provided with a lateral extension 20 that is preferably square shape in cross section and that fits within the square opening 21 in the hub of the roll-back, while the outer arm 17 is preferably provided with a square opening 22 that receives the square shank 23 of the outside handle 14. This handle may be any suitable construction but has an escutcheon plate 24 mounted on the outer panel 4 of the door.

To prevent the link 13 moving transversely of the door, I preferably provide a suitable coil spring 25 that is sleeved upon the shank 23 of the handle 14 between the hub 26 thereof and the outer arm 17 of the link. Thus this spring 25 will normally hold the extension 20 of the inner arm 16 in operative engagement with the roll-back 12 and will effectively prevent the parts from rattling.

If desired, a suitable cover 27 may be secured to the outer face of the pillar 2 to conceal the link 13.

Thus, from the foregoing description, it will be readily apparent that standard latch mechanism may be readily mounted and operated upon door pillars having relatively small cross sections without interfering with the movement of the glass panels, consequently a wider glass panel may be employed and the vision of the occupants of the vehicle is materially increased.

While it is believed that from the foregoing description, the nature and advantages of the invention will be readily apparent, I desire to have it understood that I do not limit myself to what is herein shown and described, and that such changes may be resorted to when desired as fall within the scope of what is claimed.

What I claim as my invention is:

1. In a latch, the combination with a latching bolt, a roll-back for actuating the bolt and an operating handle, of a one-piece link operatively connecting the roll-back and handle including a transversely extending base, arms formed integral with said base at each

end thereof, one of said arms directly connected to the handle and the other of said arms directly connected to the roll-back, said link being rotatable on the axis of the handle.

2. In a latch, the combination with a latching bolt, of a roll-back for actuating the bolt and a shafted operating handle, of a one-piece link operatively connecting the roll-back and handle, said link including a transversely extending base, and arm formed integral with one end of said base, an aperture in the end of said arm for receiving the shaft of the handle, an arm formed integral with the other end of said base and a projection at the end of said last mentioned arm for engaging the roll back.

3. The combination in a latch of a latching bolt, a roll-back for actuating said bolt, a hub on which said roll-back rotates, an operating handle, a rotatable shaft for said handle in axial alignment with the hub of the roll-back and a one-piece offset transversely extending link connected at its respective ends with the hub of the roll-back and with the shaft of the handle.

4. The combination in a latch of a latching bolt, a rotatable roll-back for actuating said bolt, an operating handle rotatable on an axis common to the axis of rotation of the roll-back and a one-piece offset link disposed between said parts operatively joining the parts and rotatable on their common axes.

5. The combination in a latch of a latching bolt, a rotatable roll-back for actuating said bolt, an operating handle rotatable on an axis common to the axis of rotation of the roll-back and spaced therefrom and a transversely extending one-piece link operatively connecting said parts and rotatable on their common axes, said link having an integral central portion which rotates in an arc offset from the axis of rotation of the parts.

6. The combination in a latch of a latching bolt, a rotatable roll-back for actuating said bolt, an operating handle rotatable on an axis common to that of the roll-back and spaced therefrom and a transversely extending one-piece offset link operatively connecting the parts and journaled at their common axes, the offset portion of said link rotatable in an arc spaced from the common axes of rotation of the parts.

7. The combination with a door having a runway for a movable glass panel, of latch mechanism carried by the door having a latch bolt, a rotatable roll-back upon one side of the runway, a rotatable operating handle on the other side of the runway, said roll-back and handle being rotatable on a common axis extending transversely of the door through the runway and a one-piece link operatively connecting the roll-back and handle and rotatable on their common axes, said link being offset to extend around the outer side of the glass runway.

8. The combination with a door having a runway for a movable glass panel, of latch mechanism carried by the door having a latch bolt, a rotatable roll-back upon one side of the runway, a rotatable operating handle on the other side of the runway, said roll-back and handle being rotatable on a common axis extending transversely of the door through the runway and a one-piece link operatively connecting the parts, and rotatable on their common axes, said link having an arm attached to the roll-back, another arm attached to the handle and an integral central portion joining the arms and offset to swing in an arc beyond the outer edge of the runway.

9. In a latching mechanism, the combination of a latch bolt, a remotely positioned rotatable shaft handle for operating said bolt and an operating connection between said handle and bolt comprising an integral offset link having one end connected to the shaft of said handle and rotatable on the axis of the shaft and the other end rotatably mounted in the projected line of said handle shaft axis and operably connected to said latch bolt.

10. In a latching mechanism, the combination of a latch bolt, a rotatable cam for operating said bolt, a rotatable handle for remotely operating said cam spaced apart from said cam and rotatable on the projected line of the axis of said cam and an operating connection between said cam and handle comprising an integral U-shaped link having its respective ends joined to said handle and said cam.

11. The combination with a door having a runway for a movable glass panel of latch mechanism carried by the door having a latching bolt disposed on one side of the runway, a rotatable handle for operating said bolt disposed on the opposite side of the runway, the axis of rotation of said handle extending transversely of the door through the runway, and an operating connection between said handle and bolt comprising a one-piece offset link extending transversely of the door outside the runway and rotatable on the projected axis of said handle and mounting a cam for actuating the latch bolt.

In testimony whereof I affix my signature.

MARVIN W. MOESTA.