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DOOR LATCH

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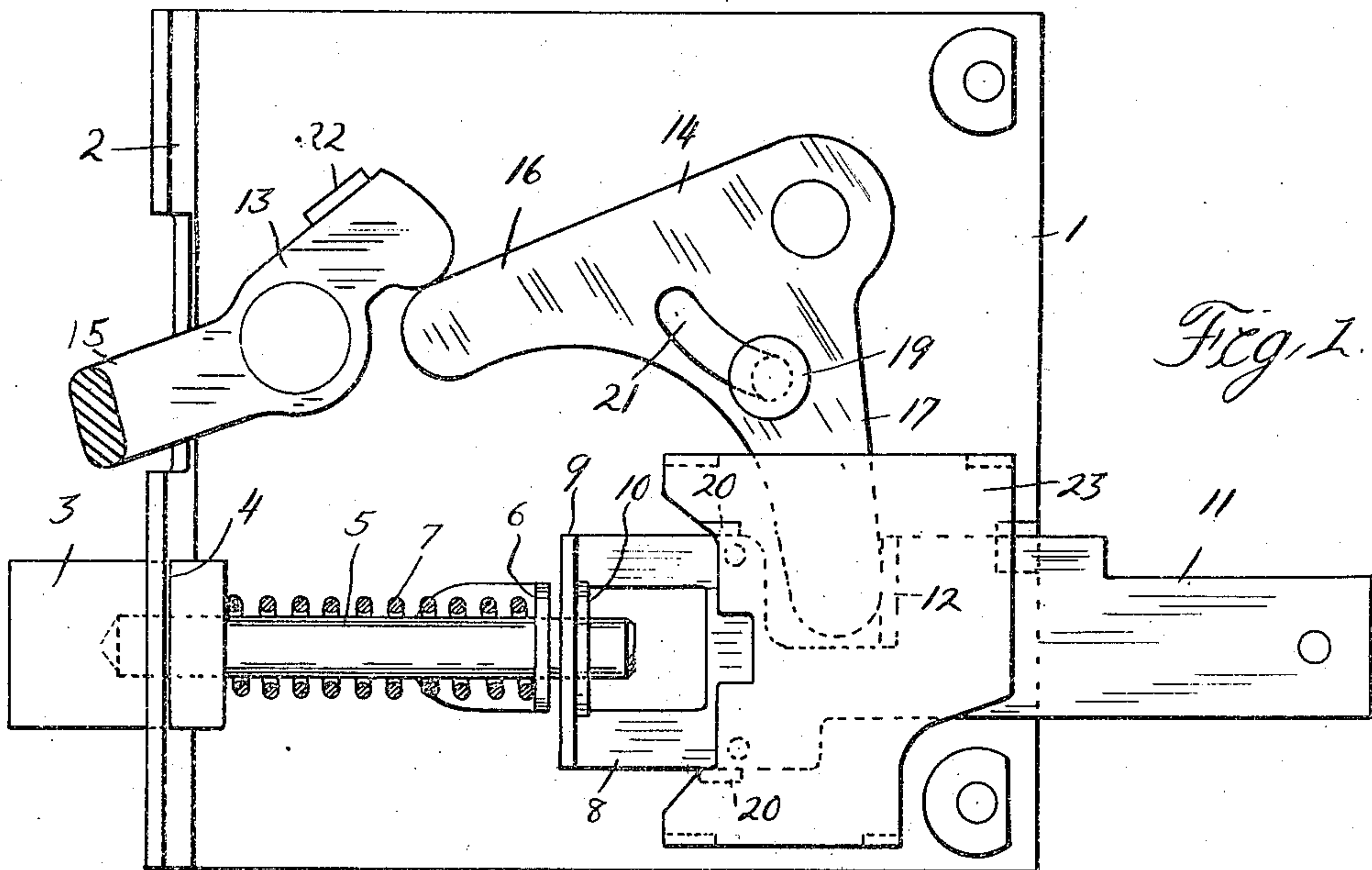


Fig. 1.

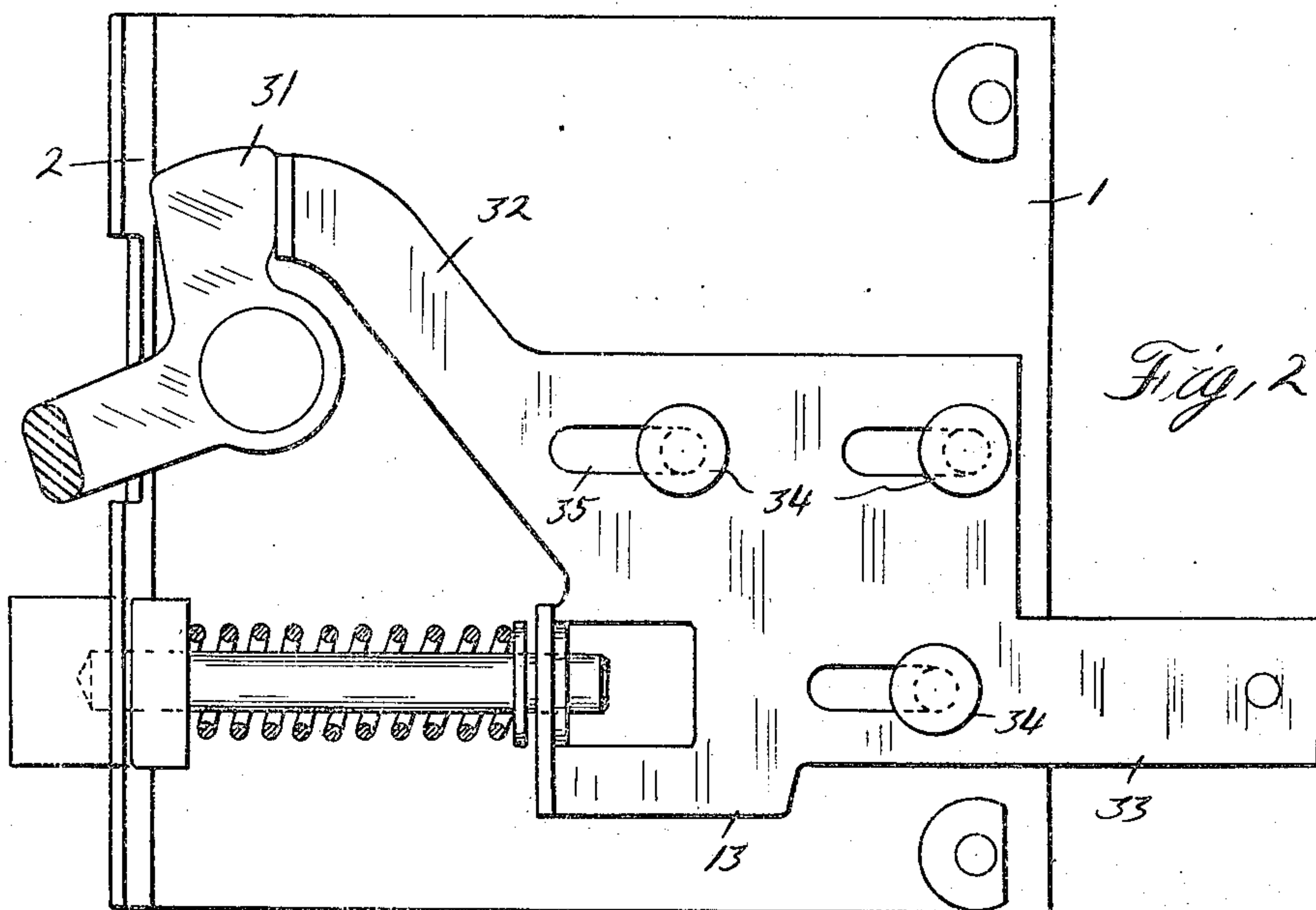


Fig. 2.

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DOOR LATCH.

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This invention relates generally to door latches particularly designed for use upon the doors of vehicle bodies 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.

In the accompanying drawing:

Figure 1 is a side elevation of a latch embodying my invention.

Figure 2 is a view similar to Figure 1 but showing a slightly modified construction.

Referring now to the drawing, 1 is a case plate having a lateral flange 2 at the forward edge thereof, and 3 is a reciprocating bolt that is movable through an opening 4 in the flange 2 for engagement with a suitable keeper (not shown). Preferably this bolt 3 has a rearward substantially cylindrical extension 5 engaging a lateral guide lug 6 on the case plate, and is normally maintained in projected position by means of a coil spring 7 that is sleeved upon the extension 5 between the bolt 3 and the guide lug 6.

For retracting the bolt against the tension of the spring 7, I have provided a yoke 8 that is adapted to be actuated from either the inside or outside of the door. Preferably this yoke 8 is slidably mounted on the case plate 1 and is operatively connected at its forward end to the cylindrical extension 5 of the bolt. As shown, this connection comprises a flange 9 that projects laterally from the yoke and engages a pin 10 extending transversely of the extension 5. Thus the bolt 3 is adapted to move independently of the yoke 8 when the door is slammed shut, but will move with the yoke when the latter is actuated from either side of the door.

In the present instance the yoke 8 is provided at its rear end with a rearward extension 11 to which suitable remote control mechanism such as that shown and described in my co-pending application filed November 23, 1925, and bearing Serial No. 70,906, may be connected for actuating the yoke from the inside of the door, and is provided intermediate its ends with a laterally extending lug 12 that is adapted to be actuated from the outside of the door by means of a rollback 13 and an intermediate arm 14. As shown, the rollback 13 is pivoted on the case plate 1 and is provided with an extension 15 that is operable by a suitable outside mechanism (not shown), while the intermediate arm 14 is preferably Y-shape and is

pivoted at one end thereof upon the case plate 1. One furcation 16 of the Y is normally engaged by the rollback 13, while the other furcation 17 is normally engaged with the lateral lug 12 on the yoke. Preferably a headed pin 19 is used to guide the swinging movements of the arm 14, while spaced lugs 20 are used to guide the sliding movements of the yoke 8. As shown, the pin 19 projects laterally from the case plate 1 and engages an arcuate slot 21 in the arm 14, while the lugs 20 project laterally from the case plate 1 and engage the upper and lower edges of the yoke 8. A lug 22 is also used to limit the upward swinging movement of the rollback 13, while a cover plate 23 is used to maintain the yoke 8 upon the case plate 1 in engagement with the lugs 20.

Thus, when the yoke 8 is retracted from the inside by the remote control mechanism referred to, the yoke will move independently of the arm 14 to retract the bolt, and when released by said control mechanism, will be restored automatically by the spring 7 to normal position. Likewise when the arm 14 is actuated by the rollback 13, the yoke 8 will be retracted by the furcation 17 to withdraw the bolt and when released will be restored automatically to normal position by the spring 7. In this connection it will be noted that a smoother action is secured by the provision of the intermediate pivoted arm 14.

In Figure 2 I have shown a slight modification in which the sliding yoke 30 is actuated directly by the rollback 31 and the remote control mechanism (not shown). Preferably this yoke 30 has an upwardly and vertically projecting arm 32 that is normally engaged by the rollback 31 and has the rearward extension 33 to which the remote control mechanism such as that shown in my co-pending application Ser. No. 70,906 may be connected. In this instance the cover plate 23 has been dispensed with and suitable headed pins 34 are used to guide the yoke and maintain the same upon the case plate. As shown these pins 34 project laterally from the case plate and engage suitable longitudinally extending slots 35 in the yoke 30. The connection between this yoke 30 and the bolt is the same as that shown and described in Figure 1.

While it is believed that from the foregoing description, the nature and advantage of my 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 latch bolt, of actuating means for said bolt including a yoke having a slidable and an operative connection therewith, a pivoted bolt retracting member, and an intermediate member having portions normally engaging said bolt retracting member and yoke whereby movement of said bolt retracting member will cause said intermediate member to actuate said yoke.

2. In a latch, the combination with a latch bolt, and a yoke having a slidable connection therewith, and means establishing an operative connection between said bolt and yoke for retracting said bolt, of means for actuating said yoke including a rollback and an intermediate pivotally mounted member having portions normally engaging said rollback and said yoke.

3. In a latch, the combination with a latch bolt, of actuating means for said bolt including a yoke having a slidable and an operative connection therewith and having a lateral lug, a pivoted bolt retracting member, and an intermediate connection between said member and yoke including a pivotally mounted member having diverging portions normally engaging said bolt retracting member and lug.

4. In a latch, the combination with a latch bolt, of actuating means for said bolt including a yoke having a slidable and an operative connection therewith, a bolt retracting member, and an operating connection between said member and yoke including an intermediate pivotally mounted substantially Y-shaped member, one furcation of said Y normally being in engagement

with the rollback, and the other furcation of the Y normally being in engagement with the yoke.

5. In a latch, the combination with a latch bolt, of actuating means for said bolt including a yoke operatively connected thereto and having a rearwardly extension for attachment to a remote control mechanism, a bolt retracting member, and an intermediate driving connection between said member and yoke.

6. In a latch, the combination with a case plate, and a latch bolt carried thereby, of actuating means for said bolt including a yoke having a slidable and an operative connection therewith, an element pivoted upon the case plate and having a portion engageable with the yoke for retracting the bolt, and means carried by the case plate guiding said pivoted element and maintaining the same upon the case plate.

7. In a latch, the combination with a case plate, and a latch bolt carried thereby, of actuating means for said bolt including a yoke operatively connected thereto, a pivoted element for retracting said yoke pivotally mounted upon said case plate and having an arcuate slot therein, and a headed element projecting laterally from the case plate and engaging said slot for guiding said element and maintaining the same upon the case plate.

8. In a latch, the combination with a case plate, and a latch bolt carried thereby, of means for actuating the bolt including a member movable over the case plate and having a slot therein, and a headed element projecting laterally from the case plate and engaging said slot, the shank of said headed element serving to guide said member, and the head serving to maintain said member upon the case plate.

In testimony whereof I affix my signature.

WILLIAM C. DEVEREAUX.