L. REHDORF.

AUTOMOBILE DOOR LATCH.

APPLICATION FILED APR. 4, 1918.

1,316,595.

Patented Sept. 23, 1919.

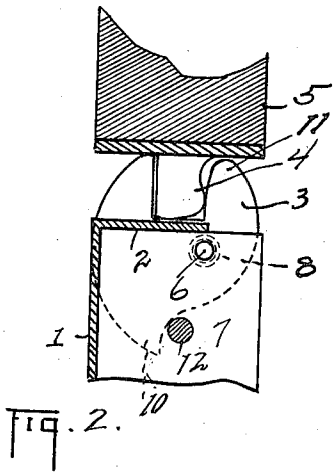


Fig. 2.

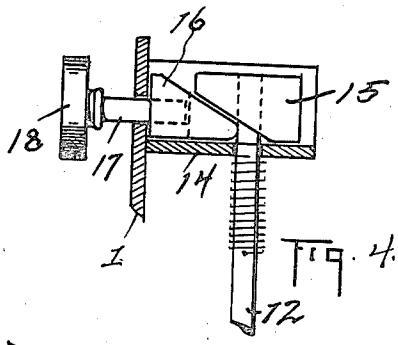


Fig. 4.

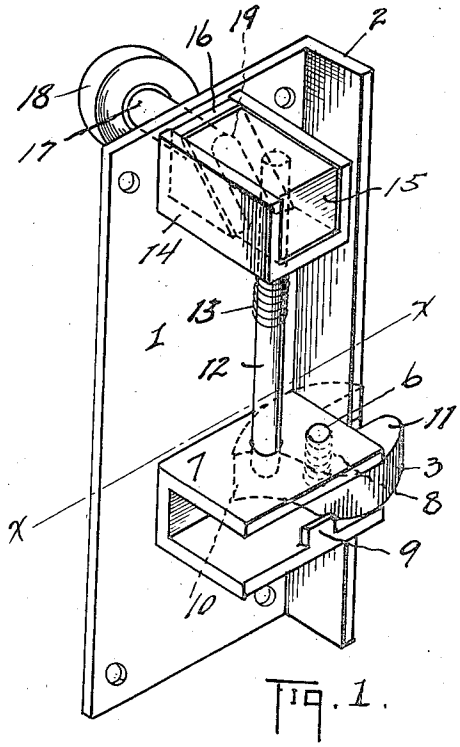


Fig. 1.

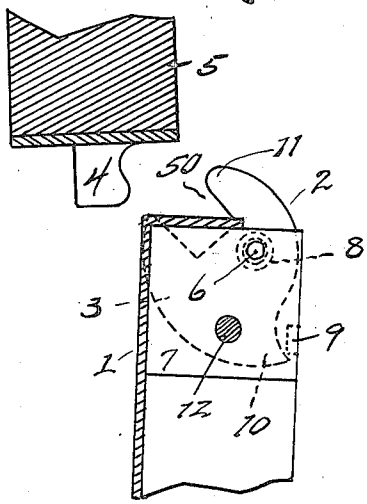


Fig. 3.

Witness
R. M. Wisner

Inventor
Louis Rehdorf

By Charles E. Wisner

Attorney

UNITED STATES PATENT OFFICE.

LOUIS REHDORF, OF DETROIT, MICHIGAN, ASSIGNOR TO JOSEPH N. SMITH & CO., OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

AUTOMOBILE-DOOR LATCH.

1,316,595. Specification of Letters Patent. Patented Sept. 23, 1919.

Application filed April 4, 1918. Serial No. 226,567.

To all whom it may concern:

Be it known that I, LOUIS REHDORF, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Automobile-Door Latches, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to latches for automobile doors, and the object of the invention is to provide a latch carried by the door that is rotatable in character to engage a stationary striker secured to the jamb and releasing means therefor of the nature of a push button instead of the usual lever that releases the latch member to rotation by a light pressure of the hand in grasping the door to open the same, and further one in which the latch member engages about the striker member on opposite sides thereof when the door is in closed position, locking the same from movement automatically. These various novel features of the invention are hereinafter more fully described and claimed.

In the drawings:—

Figure 1 is a perspective view showing my improved door latch.

Fig. 2 is a cross section on line *x*—*x* of Fig. 1 showing the latch in position relative to the striker.

Fig. 3 is a similar view showing the latch in the position assumed relative to the striker upon the opening of the door.

Fig. 4 is a detail showing the mechanism for releasing the latch member.

As will be readily understood from the drawings the latch mechanism is carried by a casing 1 that is mounted preferably on the inside of the door member, the flange 2 thereof being on the face of the door and the rotatable latch member 3 extending through an aperture provided in the face 1 to engage a striker 4 secured to a jamb 5 of the door frame. The latch member 3 is substantially circular in contour especially that portion which projects through the flange 2 and is provided with a notch 50 extending therethrough providing opposing portions engaging about the striker 2 when the door is closed. When in position shown in Fig. 2, the door is practically held from movement as will be readily understood. This latch member 3 is pivotally mounted at 6 in a holder 7 secured to the case 1 as will be understood from Fig. 1, and this pivot pin 6 is provided with a spring 8 thereabout as indicated in dotted lines in Fig. 2 so that, when free for actuation by the spring, the latch member takes the position shown in Fig. 3. One end of the spring is secured to the pin and the other end secured to the latch member. The holder 7 is U shaped in form as shown, and the lower edge thereof is provided with a lug 9 and the latch member is provided with a rearwardly extending part 10 adapted to engage the lug 9 when turned by action of the spring as shown in Fig. 3. This positions the notch 50 in such manner that the outer point 11 engages the striker 4 on movement of the door to closing position. Upon this point 11 engaging the striker the latch is turned on its pivot and finally assumes the position shown in Fig. 2. Upon assuming this position the spring pressed plunger 12, which has an end passing into the holder 7 through an aperture therefor as will be understood from Fig. 1, engages behind the extension 10 and holds the latch in a locked position. The plunger 12 upon being pressed upwardly against the tension of the spring 13 thereon releases the latch 3 for operation by the spring 8, the plunger upon release thereof then resting upon the upper face of the latch member as will be readily understood from Fig. 3. The upper end of the plunger 12 passes through an aperture in the retainer 14 secured to the upper end of the supporting casing 1. This holder is U shaped in form as will be understood from Fig. 1, and the upper end of the rod or plunger 12 is provided with a wedge block 15, the under face of which is tapered as shown in Fig. 4. Also carried in this holder 14 is a complemental wedge block 16 engaging beneath the wedge block 15 of the plunger 12, and this block 16 is provided with a stem 17 extending through the case 1 to the inner face of the door, and the outer end of the stem is provided with a button 18. By pressure on the button 18, the block 16 is forced beneath the block 15 raising the plunger and releasing the latch as heretofore stated.

In operation, when the door is closed the

operator simply grasps the door with the hand on the button 18 and pressing thereon, which forces the wedge 16 beneath the wedge 15, and raising the plunger 12 and allowing the latch to rotate on its pivot as will be understood from Fig. 3. Upon release of the button 18 the plunger then rests directly upon the upper face of the latch 3. The block 16 is bifurcated, as indicated at 19 by dotted lines in Fig. 1, to pass each side of the stem or plunger 12. Upon closing the door the point 11 of the latch engages the striker, as before stated, again turning the latch member about the striker as shown in Fig. 2 and upon assuming the said position the plunger is projected by the spring 13 downward into the holder 7 behind the end 10 of the latch securing the latch in closed position and preventing accidental opening of the door.

Having thus briefly described my invention, what I claim and desire to secure by Letters Patent of the United States is—

1. In a door latch, in combination with a movable door member and a stationary jamb member, a latch pivotally supported in the door, a striker secured to the jamb, the latch being notched to engage opposite sides of the striker, a vertically reciprocable spring-pressed plunger, the latch member having a portion behind which the plunger may engage by action of its spring to prevent rotation of the latch when in engagement with the striker, and a second plunger extending through the inner face of the door by means of which the first named plunger may be raised to permit rotation of the latch.

2. In a door latch, in combination with a movable door member and a stationary jamb member, a latch member pivotally supported in the door to swing on a vertical axis, a striker secured to the jamb, the latch being notched to engage opposite sides of the striker, a vertically reciprocable spring-pressed plunger supported within the door, the latch being provided with a part behind which the said plunger may be projected by its spring to prevent rotation of the latch member to release from the striker, a spring tending to rotate the latch in a direction to release from the striker, and means exposed on the interior of the door for raising the plunger against the tension of its spring to release the latch to movement by its spring.

3. In a door latch, a movable door member and a stationary jamb member, a latch case secured to the door member, a latch pivotally supported in the case to swing on a vertical axis, a striker secured to the door jamb, the latch member being notched to engage opposite sides of the striker, a spring tending to turn the latch on its pivot, an apertured member supporting the latch, a vertical spring-pressed plunger engaging in said aperture, the latch being provided with an extension behind which the plunger may engage to hold the latch in engagement with the striker, the upper end of the plunger being provided with a wedge member, a support for said wedge member, a complemental wedge member having a stem projecting through the door and latch case adapted upon pressure being exerted on the stem to engage the wedge of the plunger to raise the same against the tension of the spring from engagement behind the extension of the latch and release the latch to operation by its spring, a stop limiting the extent of movement of the latch by the spring whereby one point of the latch is retained in position to engage the striker on closing movement of the door, said movement rotating the latch on its pivot whereby the striker is engaged by the latch and the plunger released to action by its spring to engagement behind the extension.

In testimony whereof, I sign this specification.

LOUIS REHDORF.