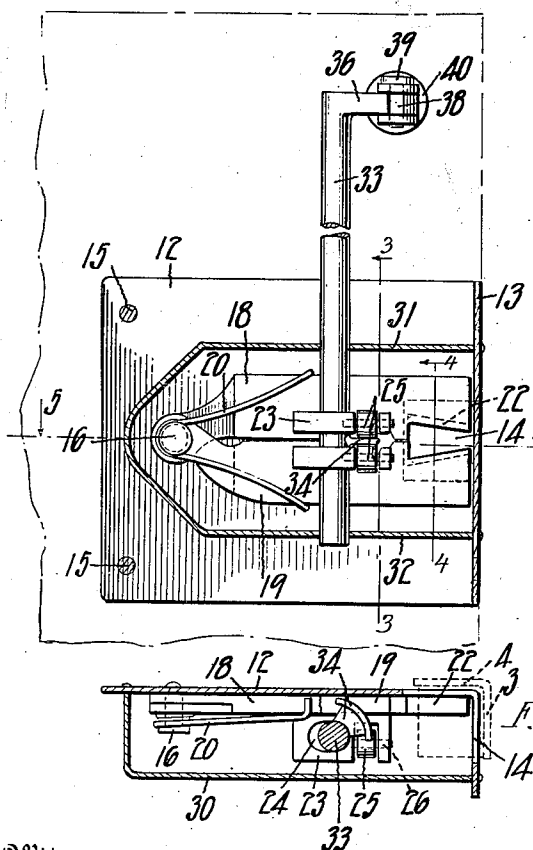
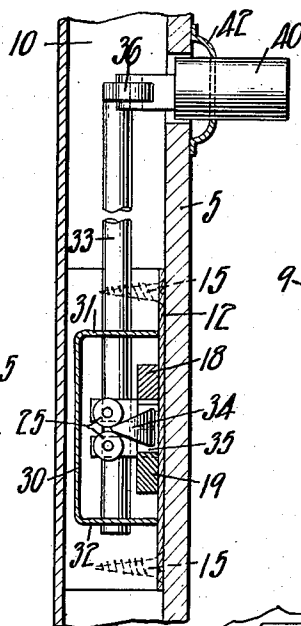
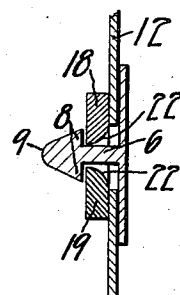
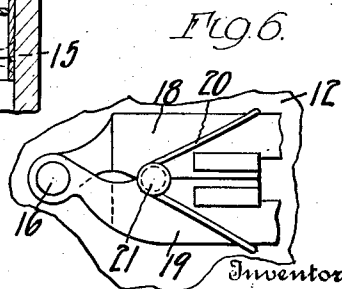


1,191,679.

Patented July 18, 1916.



Witnesses  
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# UNITED STATES PATENT OFFICE.

CLEMENS DZIEGIELEWSKI, OF DETROIT, MICHIGAN.

## DOOR-LATCHING DEVICE.

1,191,679.

Specification of Letters Patent.

Patented July 18, 1916.

Application filed July 31, 1915. Serial No. 42,900.

*To all whom it may concern:*

Be it known that I, CLEMENS DZIEGIELEWSKI, a subject of the Czar of Russia, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Door-Latching Device, of which the following is a specification.

This invention relates to a latch for doors, preferably those of automobiles, and among its important features are the following:—cam means operated by a push button, whereby the latch may be removed from engagement with the striker plate; a pair of latch plates and resilient means for normally causing them to approach the striker plate from opposite directions, together with a cam or wedge whereby they may be spaced apart to release the striker plate; rollers mounted on the latch plate, said rollers receiving the wedge between them; a push button mounted near the upper edge of the door, and shaft operated cam means connected thereto for withdrawing the latch plate from the striker plate.

The invention also consists in the details of construction shown, described and particularly pointed out in the claims.

In the drawings, Figure 1 is an inside perspective view of a door of an automobile and enough of the adjacent frame to indicate the application of the invention. Fig. 2 is a part elevation, part section taken from the outside of the door, the latter being indicated in dashed lines. Fig. 3 is a section on the line 3—3 of Fig. 2. Fig. 4 is a section on the line 4—4 of Fig. 2, the striker plate also shown. Fig. 5 is a section on the broken line 5—5 of Fig. 2. Fig. 6 is a detail showing a slight modification.

Similar reference characters refer to like parts throughout the several views.

Attached by screws 1 or otherwise to the edge face 2, that surrounds the usual door opening, is a striker plate 3 having a flange 4 that may be arranged substantially in the plane of the inner surface of the body, whereby the movement of the door 5 inwardly is limited. A T- or arrow-head shaped striker comprising a neck or web 6, that terminates in the vertically extending flanges 8 having the wedged outer surface 9, lies between the flange 4 and the rest of the plate.

A portion of the door may be cut away in the manner indicated at 10 in Fig. 3, and receives a base plate 12 having a flange 13

in the edge plane of the door, the plate, including the flange, being slotted as shown at 14 in Figs. 1 and 5 to admit the striker, and being secured in position by the screws 15. Projecting from the plate is a pivot 16 about which swing the opposed latch bars 18 and 19, that are normally held in engagement with each other by the spring 20; this spring may either be wrapped around the pivot 16 (Figs. 2 and 5) or about a pin 21 (Fig. 6) which projects from the base plate at a point between the pivot and the slot 14. The latter arrangement, for a given size of spring, obviously affords a greater effective latching tendency. In order that the latch bars may be automatically spread apart as the door swings into engagement with the striker plate, they are beveled as indicated at 22 (Fig. 4); and, for the purpose of insuring a proper contact with the striker plate throughout the opening movement, the beveled faces may also be made to converge longitudinally (Fig. 2).

Each of the latch bars is provided with a lug 23 slotted at 24 and cut away to receive a roller 25 supported on a pin 26, said rollers being located in vertical alinement with each other. A plate 30, of any preferred shape, comprising the upper and lower perforated sides 31 and 32, is riveted or otherwise secured to the base plate and forms with the latter a housing for the latch parts heretofore described. Journaled in the perforated sides is a vertically arranged shaft 33 with which the wedge 34 is rigid, said wedge being normally held (by the action of the spring 20) in a pocket 35 formed by cutting away portions of the latch bars (Fig. 3), from which it will be seen that the wedge is thrust between the rollers 25 when the shaft is turned in the proper direction. The latch plates are thus caused to swing out of alinement with the flanges on the striker and release the door, this motion being allowed by the slots 24 in the lugs 23. At its upper end the shaft 33 is provided with a crank or arm 36 preferably notched at 38 to receive the pin 39, whereby it is connected to the divided end of a push button 40. The latter projects from the inner face of the door, and is guided by any suitable guide member 42.

It is clear that the details of the device may be modified to a considerable degree without departing from the spirit of the invention; for example, the relative loca-

tion of the striker plate and the latch elements may be reversed. I do not, therefore, wish to be limited other than as indicated by the subjoined claims.

5 I claim:

1. In combination, two members, one a door frame and the other a door arranged to swing in respect thereto, mechanism for latching the door comprising a striker plate  
10 supported by one of the members, said striker plate including a T-shaped striker having a web extending transversely of the member by which it is carried and having flanges extending from the web in opposite  
15 directions in the plane of the last mentioned member, means for supporting said striker plate on the edge of the member by which it is carried and wholly between the inner and outer faces thereof, said striker plate in-  
20 cluding a base flange through which the supporting means passes, said flange lying in a plane at substantially right angles to the plane of the member by which the striker plate is carried, a pair of pivotally sup-  
25 ported opposed latch bars carried by the other member, resilient means tending to force the latch bars together, said latch bars being in alinement with the striker, where-  
30 by they are forced apart as the door approaches a closed position and are thereafter snapped together beyond the flanges, a rotatable shaft arranged transversely of the latch bars, and a wedge carried by said shaft, said wedge being positioned to enter  
35 between the latch bars and force them out of alinement with the striker when the shaft is rotated.

2. In combination, two members, one a door frame and the other a door arranged to swing in respect thereto, mechanism for latching the door comprising a striker supported by one of the members, said striker  
40 including a web extending transversely of the member by which it is carried and oppositely extending flanges arranged in the plane of the last mentioned member, said web and flanges together being substantially arrow-head shape in cross-section, means for supporting said striker plate on the edge of  
45 the member by which it is carried and wholly between the inner and outer faces thereof, said striker plate including a base flange through which the supporting means passes, said flange lying in a plane at substantially right angles to the plane of the member by which the striker plate is carried, a pair of pivotally supported opposed latch bars carried by the other member, re-  
50 silient means tending to force the latch bars together, said latch bars being in alinement with the striker, whereby they are forced apart as the door approaches a closed position and are thereafter snapped together beyond the flanges, a rotatable shaft arranged  
55 transversely of the latch bars, and a wedge

carried by said shaft, said wedge being positioned to enter between the latch bars and force them out of alinement with the striker when the shaft is rotated.

3. In combination, two members, one a door frame and the other a door arranged to swing in respect thereto, mechanism for latching the door comprising a striker plate supported by one of the members, said  
70 striker plate including a T-shaped striker, means for supporting said striker plate on the edge of the member by which it is carried and wholly between the inner and outer faces thereof, said striker plate including a base flange through which the supporting  
80 means passes, said flange lying in a plane at substantially right angles to the plane of the member by which the striker plate is carried, a pair of pivotally supported opposed latch bars carried by the other mem-  
85 ber, resilient means tending to force the latch bars together, said latch bars having beveled surfaces flaring transversely of the plane of the member by which they are carried in alinement with the striker whereby  
90 they are forced apart as the door approaches a closed position, the resilient means serving to thereafter force them toward each other, beyond the flanges, a rotatable shaft arranged transversely of the latch bars, and  
95 a wedge carried by said shaft, said wedge being positioned to enter between the latch bars and force them out of alinement with the striker when the shaft is rotated.

4. In combination two members, one a door frame and the other a door arranged to swing in respect thereto, mechanism for latching the door comprising a striker plate supported by one of the members, said  
100 striker including a web and a flange projecting therefrom, the flange having a surface inclined transversely in respect to the plane of the door opening, means for supporting said striker plate on the edge of the member by which it is carried and wholly  
105 between the inner and outer faces thereof, said striker plate including a base flange through which the supporting means passes, said flange lying in a plane at substantially right angles to the plane of the member by  
110 which the striker plate is carried, a latch bar pivotally supported on the other member, a spring for normally holding the latch bar in alinement with the inclined surface on the striker, a rotatable shaft arranged  
115 transversely of the latch bar, a wedge rigid therewith whereby, when the shaft is rotated, the latch bar is removed from alinement with the striker, and means for imparting angular movement to the shaft.  
120

5. In combination, a door frame having an opening, a door pivoted to swing in said opening, a striker supported on the frame, said striker including a surface inclined  
125 transversely in respect to the plane of the

door opening, there being a depression in the striker beyond the inclined surface, means for supporting said striker plate on the edge of the member by which it is carried and wholly between the inner and outer faces thereof, said striker plate including a base flange through which the supporting means passes, said flange lying in a plane at substantially right angles to the plane of the member by which the striker plate is carried, a latch bar pivotally supported on the door, a spring for normally holding the latch bar in alinement with the inclined surface on the striker, a rotatable shaft arranged transversely of the latch bar, a wedge rigid therewith, whereby, when the shaft is rotated, the latch bar is removed from alinement with the striker, and means for imparting angular movement to the shaft.

6. In combination, a frame having an opening, a door movable in respect thereto, a striker supported on the frame, said striker including a surface inclined transversely in respect to the door opening, there being a depression in the striker beyond the inclined surface, a latch bar pivotally supported on the door, a spring for normally holding the latch bar in alinement with the inclined surface on the striker, a rotatable shaft arranged transversely of the latch bar, a wedge rigid therewith, whereby, when the shaft is rotated, the latch bar is removed from alinement with the striker, a push button projecting from the door, means connecting the push button and shaft for imparting angular movement to the latter.

7. In combination, two members, one a door frame having an opening and the other a door movable in respect thereto, mechanism for latching the door comprising a striker plate supported by one of the members, said striker plate including a T-shaped striker, a pair of pivotally supported op-

posed latch bars carried by the other member, resilient means tending to force the latch bars together, said latch bars being in alinement with the striker, whereby they are forced apart as the door approaches a closed position and are thereafter snapped together beyond the flanges, a rotatable shaft arranged transversely of the latch bars, a wedge carried by said shaft, said wedge being positioned to enter between the latch bars and force them out of alinement with the striker when the shaft is rotated, a crank rigid with the shaft, and a push button connected to the crank and projecting from the door whereby angular movement may be imparted to the shaft.

8. In combination, two members, one a door frame and the other a door arranged to swing in respect thereto, mechanism for latching the door comprising a striker plate supported by one of the members, said striker including a web and a flange projecting therefrom, the flange having a surface inclined transversely in respect to the plane of the door opening, means for supporting said striker plate on the edge of the member by which it is carried and wholly between the inner and outer faces thereof, said striker plate including a base flange through which the supporting means passes, said flange lying in a plane at substantially right angles to the plane of the member by which the striker plate is carried, a latch bar pivotally supported on the other member, a spring for normally holding the latch bar in alinement with the inclined surface on the striker, a rotatable shaft arranged transversely of the latch bar, and means whereby, when the shaft is rotated, the latch bar is removed from alinement with the striker.

In testimony whereof I sign this specification.

CLEMENS DZIEGIELEWSKI.