May 26, 1942. W. K. FREEMAN 2,284,192

AUTOMOBILE DOOR LOCK

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Fig. 1.

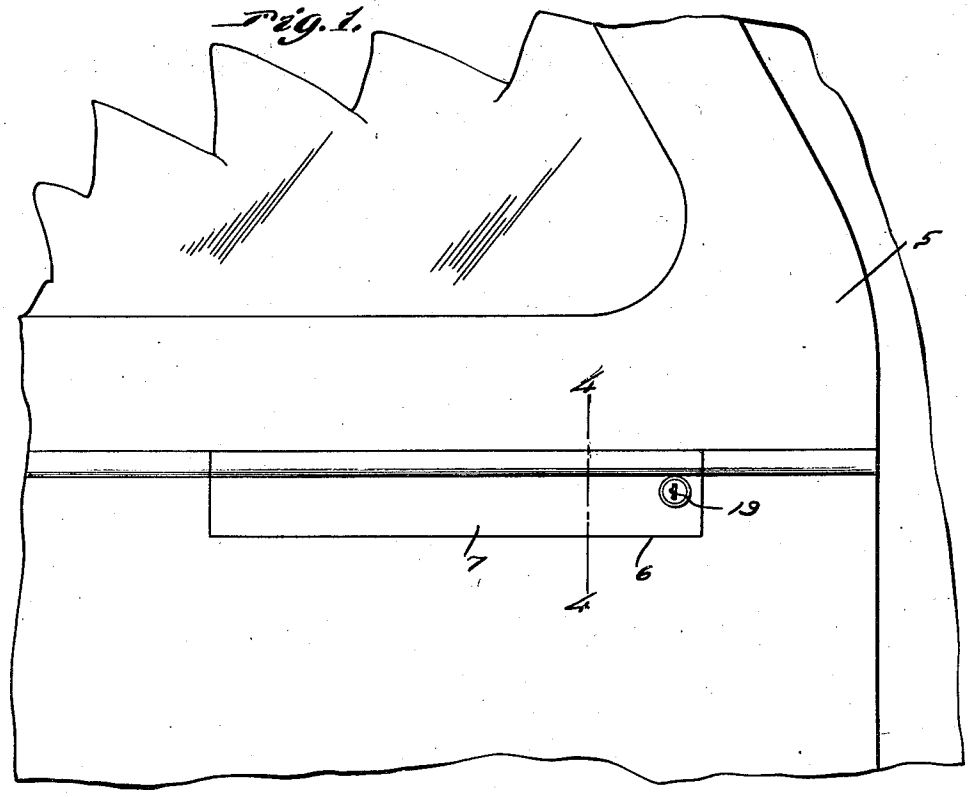
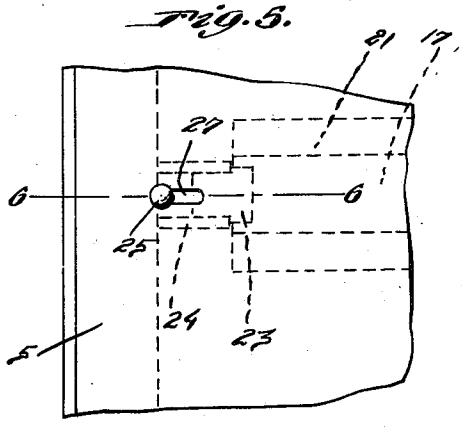


Fig. 5.



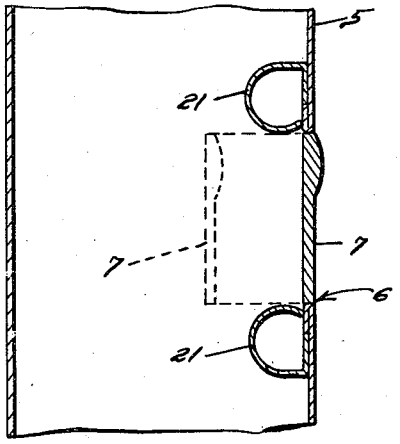


Fig. 4.

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Fig. 2.

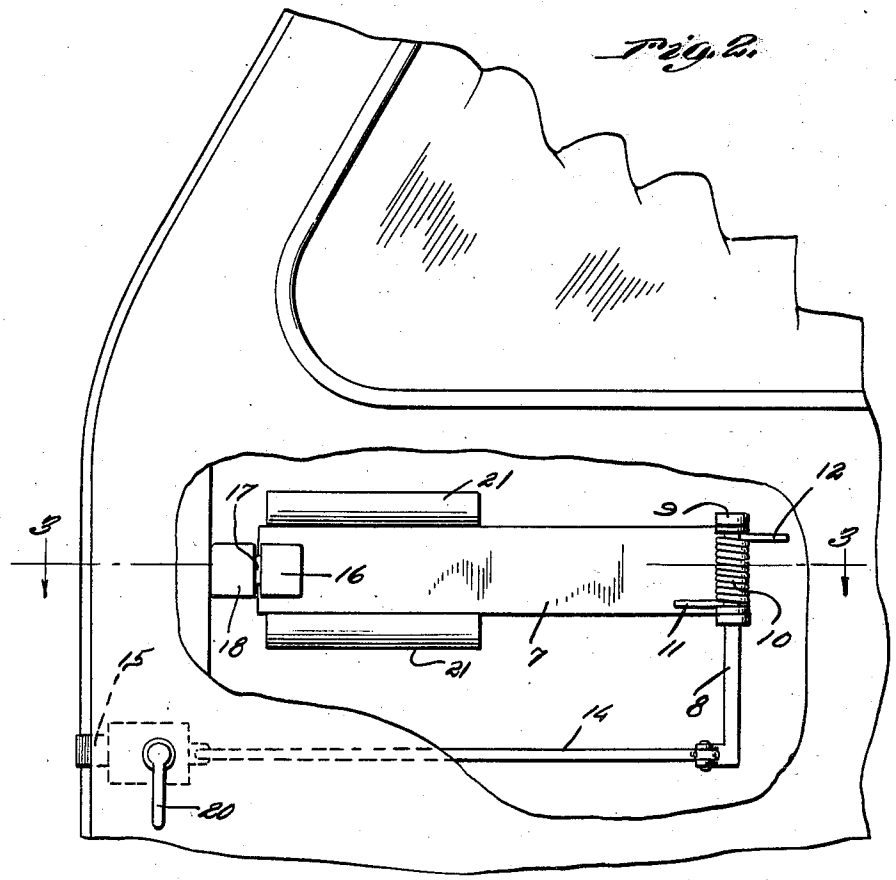


Fig. 5.

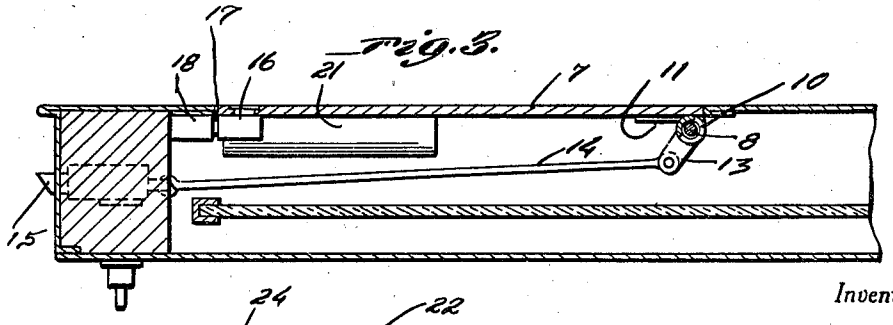
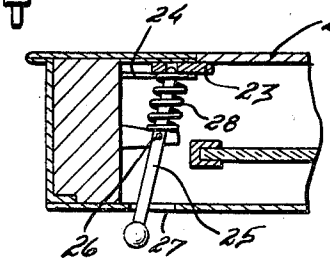


Fig. 6.



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UNITED STATES PATENT OFFICE

2,284,192

AUTOMOBILE DOOR LOCK

William K. Freeman, Cincinnati, Ohio

Application January 7, 1941, Serial No. 373,511

1 Claim. (Cl. 70—208)

The present invention relates to new and useful improvements in locks for automobile and other vehicle doors and has for its primary object to provide novel means operable from the exterior of the door for releasing the door bolt to permit opening of the door.

More specifically the invention comprises a lever recessed in the surface of the door and operable upon an inwardly pivotal movement to release the door bolt.

The invention further embodies means for controlling the bolt against unlocking movement from the inside of the door.

A still further object is to provide a device of this character of simple and practical construction, which is neat and attractive in appearance, relatively inexpensive to manufacture and install in operative position and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which—

Figure 1 is a fragmentary side elevational view of an automobile door embodying the present invention,

Figure 2 is a similar view of the inside of the door with parts broken away,

Figure 3 is a sectional view taken substantially on a line 3—3 of Figure 2,

Figure 4 is a fragmentary vertical sectional view taken substantially on a line 4—4 of Figure 1,

Figure 5 is a fragmentary side elevational view of the inside of one of the doors showing the inner locking means for the bolt, and

Figure 6 is a fragmentary sectional view taken substantially on a line 6—6 of Figure 5.

Referring now to the drawings in detail and with particular reference to Figures 1 to 4 inclusive, the numeral 5 designates an automobile door of conventional construction, the outer surface of the door being provided with an opening 6 extending horizontally and in which is conformably fitted a lever 7 having one end fixedly secured to a vertically extending rock shaft 8 journalled in bearings 9 at the inside of the door. Mounted on the shaft 8 is a coil spring 10 having one end indicated at 11 bearing against the inside of the lever 7 and the opposite end 12 of the spring bearing against the inside of the door to yieldably urge the lever 7 into a position flush with the outer surface of the door 5.

To the lower end of the shaft 8 is secured a laterally projecting arm 13 to the outer end of which is pivoted a rod 14 extending parallel to the lever 7 toward the free edge of the door 5 and connected to the sliding bolt 15, which is employed for securing the door in a closed position in the usual manner.

To the inside of the lever 7 adjacent its free end is a key controlled lock 16 including the bolt 17 adapted for engagement with the keeper 18 of conventional construction.

The bolt 17 is adapted for actuation through the medium of a key inserted through the keyhole opening 19 in the outer surface of the lever 7 whereby the lever 7 may be locked against inward movement and thus secure the bolt 15 against retracting actuation.

The inside of the door 5 is provided with a lever 20 connected to the bolt 15 for retracting the same from the inside of the automobile, when desired.

The upper and lower edges of the opening 6 in the door are rolled inwardly to provide tubular hand gripping bars 21 at the inside of the opening 6 whereby upon the inward movement of the lever 7 the fingers of a person may engage the bars 21 and either the upper or lower edges of the opening 6 and thus permit the door to be grasped for opening movement.

It is the present custom to provide only one of the automobile doors of a vehicle with a key-controlled lock and in the present embodiment of the invention the remaining doors of the vehicle may be locked by means of a bolt illustrated in Figures 5 and 6 of the drawings. In this form of the invention the bolt releasing lever is designated at 22 adapted for overlapping engagement at its free edge by means of a bolt 23 slidably mounted in guides 24 at the inside of the door.

A lever 25 is pivoted intermediate its ends as at 26, one end of the lever being attached to the bolt 23 and the other end of the lever projects through an opening 27 on the inner side of the door for manipulation of the bolt. A coil spring 28 is mounted on the lever 25 adjacent the bolt 23 to yieldably maintain the lever and bolt against accidental movement.

It is believed the details of construction, advantages and manner of use of the device will be readily understood from the foregoing without further explanation.

What I claim is—

A lock for an automobile door having a horizontal slot in the outside thereof, said lock com-

prising a bolt adapted to be mounted in the free edge of the door for projection and retraction, an elongated plate adapted to fit flush in said slot, means to mount one end of the plate on said door for swinging of its other end inwardly of the slot and comprising a vertically extending rock shaft adapted to be journaled inside said door and provided with a lateral arm on one end thereof, a rod operatively connecting said arm to said bolt for retraction of the bolt under swinging of said plate inwardly of the slot, and a key operative second bolt on said other end of said plate adapted for coaction with a keeper on said door.

WILLIAM K. FREEMAN.