Nov. 24, 1925. 1,563,060

P. F. AUGENBRAUN

AUTOMOBILE DOOR LOCK

Original Filed June 30, 1922

Fig. 1.

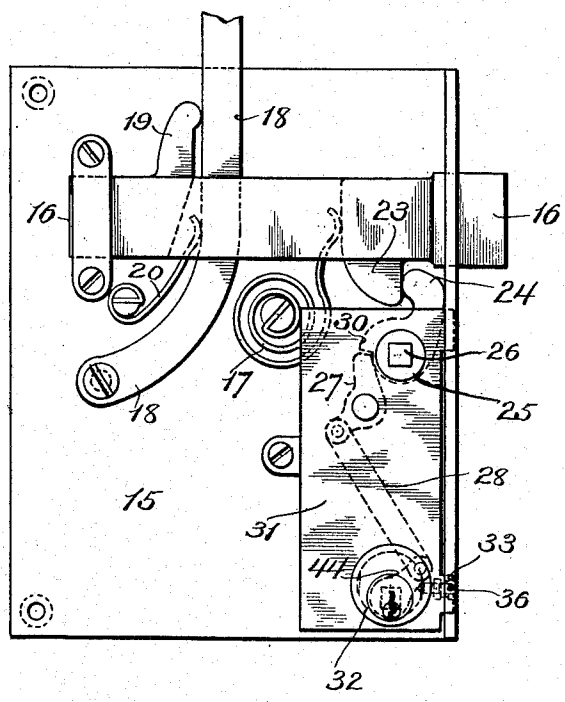


Fig. 2.

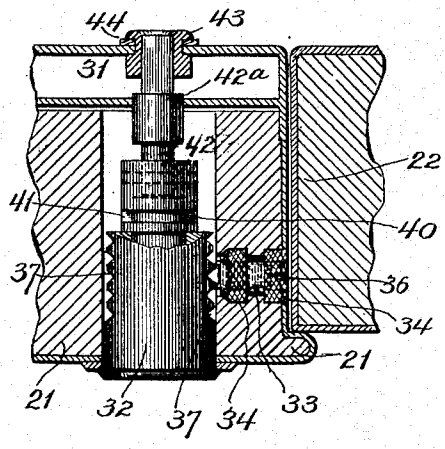
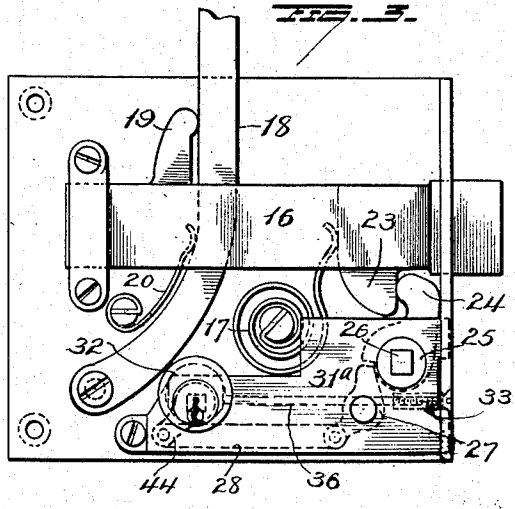


Fig. 3.



Inventor

P. F. Augenbraun

By Seymour & Bright

Attorneys

Patented Nov. 24, 1925. 1,563,060

UNITED STATES PATENT OFFICE.

PETER F. AUGENBRAUN, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE YALE & TOWNE MANUFACTURING COMPANY, OF STAMFORD, CONNECTICUT.

AUTOMOBILE DOOR LOCK.

Original application filed June 30, 1922, Serial No. 572,004. Divided and this application filed June 16, 1923. Serial No. 645,796.

To all whom it may concern:

Be it known that I, PETER F. AUGENBRAUN, a citizen of the United States, and a resident of Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Automobile Door Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in locks and more particularly to such as are adapted for use on automobile doors and consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims,—this application being a division of application for patent filed by me on the 30th day of June, 1922 and designated by Serial No. 572,004.

In the accompanying drawings:—

Figure 1 is a view of a lock embodying my invention;

Figure 2 is a view in section through the door and frame and showing means for locking the cylinder of a pin tumbler lock in place, and

Figure 3 is a view showing a modification.

In the drawings, 15 represents a lock case designed more particularly for automobile doors, and 16 is the bolt yieldingly forced into locking position by the spring 17, and retracted by the inside lever 18 which bears against the upwardly extending lug 19 on the bolt 16, the lever being yieldingly held away from the lug 19 by the spring 20.

The lever 18 is at the inner side of the door, and when the window of the door is closed, is accessible only from the inner side of the car.

The bolt 16 is mounted in or on the case 15 which is designed to be secured to the door 21 in the usual and well known manner, and engages a keeper carried by the side 22 of the body of the car, and is provided with a depending projection 23 adapted to be engaged by the roll back 24 secured to the hub 25 of the outside lever handle 26. The lug 23 on the bolt is normally held in contact with the roll back 24 by the spring 17, and the roll back 24 is actuated by the handle 26 to retract the bolt 16 from the outer side of the car.

Secured to the latch case is a deadlocking mechanism consisting of a deadlocking dog 27, a pitman 28, a pin tumbler lock and a connection between the plug of the pin tumbler lock and the pitman 28 for shifting the dog 27 to a position to engage or release the shoulder 30 on the roll back 24. When the dog is in contact with said shoulder, the outside handle is absolutely deadlocked and consequently the bolt can only be retracted by the inside lever 18. When the dog is moved out of the path of shoulder 30, the bolt 16 may be retracted from the inside of the car by the lever 18, or from the outside by the lever handle 26.

Secured to the lock case 15 is the plate 31, which, as shown in Figure 1, is designed for a large lock, and the pin tumbler lock 32 is located near the edge of the door as shown in Figure 2, and when so located is secured by a screw 36 mounted in a sleeve 33 secured within a hole in the inner edge of the door. The sleeve shown in Figure 2 is provided with one or more peripheral ribs 34 which are provided with milled or knurled peripheries adapted when forced into the hole in the door, to engage the walls of the hole and hold the sleeve against displacement. The cylinder 32 may be provided with flattened sides, and these flattened sides may be provided with ridges or ribs 37, which are engaged by the screws and when so engaged, the cylinder of the lock will be held in place against the possibility of any movement whatsoever.

The plug of the pin tumbler lock is provided at its inner end with a pin 40 which rests in a circumferential slot 41 in the sleeve 42 which is secured to the connecting bar 42^a. The connecting bar passes through plate 31 and carries a hub 43 having a cam 44 which is connected at its free end with the pitman 28. The dog 27 is centrally pivoted to a stud on the plate 31 and is actuated to engage and disengage the roll back by said pitman.

In some instances it is desirable to use a smaller lock and locate the pin tumbler lock farther away from the edge of the door and such construction is shown in Figure 3.

In this latter construction the plate 31^a which corresponds to plate 31 of the con-

struction shown in Figure 1, extends horizontally lengthwise the lower edge of the lock case instead of vertically, and the pitman 28 is horizontal instead of substantially vertical, thus shortening up the lock case to a considerable extent. This change in the position of the pin tumbler lock is made possible by swinging the cam 44 and pitman 28 to the new position shown in Figure 3, and is also facilitated by the pin and slot connection 40—41 between the plug of the pin tumbler lock and the connection 42 between said plug and the outside lever handle, which pin and slot connection also permits of a full revolution of the key plug to about an eighth of a revolution of the deadlocking cam 24, this lost motion of the pin in the slot permitting the plug to be revolved to a position where the key can be removed when the locking dog 27 is in its deadlocking position and also when turned to release the dog. This construction is simple and economical and permits of the necessary operation of the pin tumbler lock and dog which would not be possible without it.

It is evident that many slight changes might be resorted to in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention hence I would have it understood that I do not wish to confine myself to the exact construction and arrangement of parts shown and described but,

Having fully described my invention what I claim as new and desire to secure by Letters Patent, is:—

In a lock for automobile doors, the combination of a spring projected latch bolt, outside means for retracting said bolt, a deadlocking dog for said outside retracting means, a pitman connected with said dog, a pin tumbler lock, and connecting means between the plug of said pin tumbler lock and the pitman, the said connecting means comprising a cam permanently connected with said pitman, a bar between said cam and the plug of the pin tumbler lock said cam a pin-and-slot connection between said bar and plug.

In testimony whereof, I have signed this specification.

PETER F. AUGENBRAUN.