

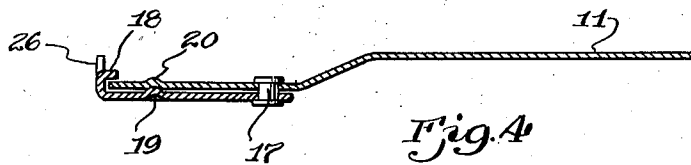
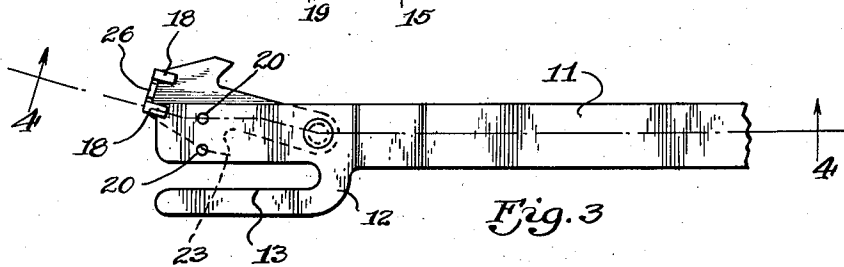
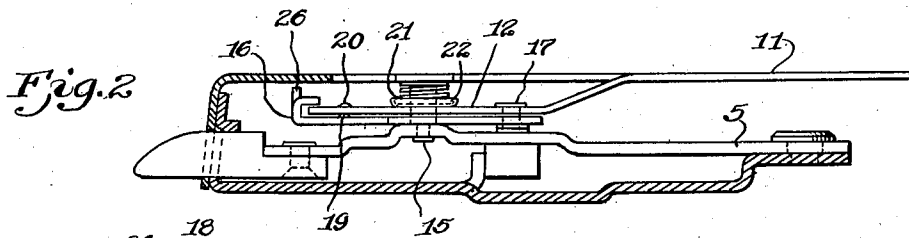
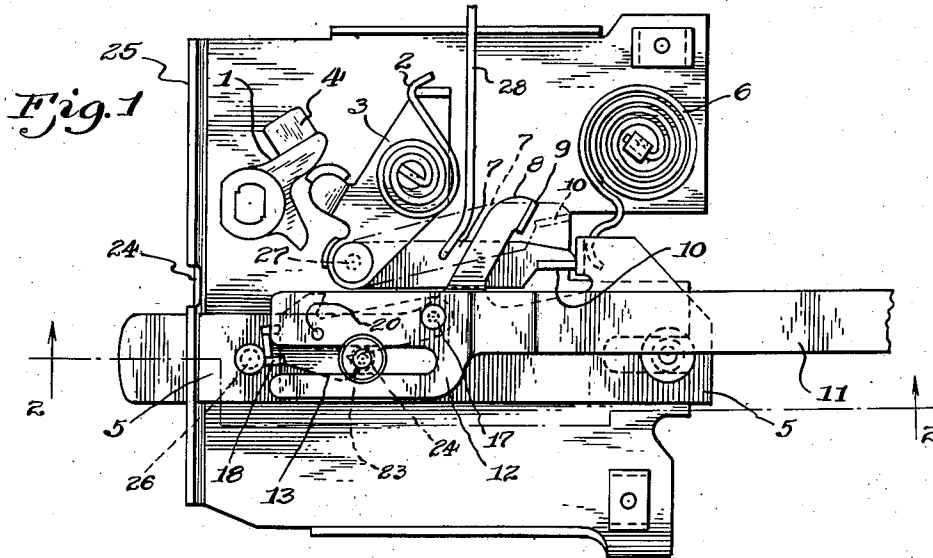
Feb. 16, 1943.

E. G. SIMPSON

2,311,094

OPTIONAL SAFETY HANDLE FOR LOCKS FOR AUTOMOBILE BODIES

Filed Sept. 17, 1941



INVENTOR.
Emory Glenn Simpson

BY
Barnes, Kisselle, Laughlin & Prisch
Attorneys.

UNITED STATES PATENT OFFICE

2,311,094

OPTIONAL SAFETY HANDLE FOR LOCKS
FOR AUTOMOBILE BODIESEmory Glenn Simpson, Detroit, Mich., assignor to
Ternstedt Manufacturing Company, Detroit,
Mich., a corporation of Michigan

Application September 17, 1941, Serial No. 411,092

5 Claims. (Cl. 292-165)

This invention relates to optional safety handles for locks for automobile bodies.

It has long been recognized that inside handles, especially in the rear doors which can be manipulated by children to open the door, are a problem. Numerous ways for locking the rear doors against inside opening have been proposed and some of them have been put into practice. The present invention relates to a lock of the semi-freewheeling type of outside handle in which the inside handle can be optionally connected with the lock so as to be also semi-freewheeling, or may be connected with the lock bolt directly so as to operate in the usual way, to wit: the outside handle semi-freewheeling and the inside handle always arranged to retract the bolt.

In the drawing:

Fig. 1 is an elevation of the lock.

Fig. 2 is a section on the line 2-2 of Fig. 1 with the door panel added.

Fig. 3 is an elevational detail of my improved feature for optionally connecting the inside remote handle directly with the bolt or with the outside handle operating connections.

Fig. 4 is a section on the line 4-4 of Fig. 3.

The lock is of the Andersen and Bowlus type described and claimed in Patent No. 2,039,873. In this type of lock an outside rollback 1 is provided. The spring 2 bearing against the lever 3 tends to force the rollback 1 against the stop 4 and keep the outside handle (not shown) in the raised position. The bolt 5 is projected by the clock spring 6. In the position shown in Fig. 1, the operating thrust link 7 is in position to retract the bolt, but this link may be shifted upwardly to the dotted line position. In this position the link will not retract the bolt and, consequently, the outside handle becomes semi-freewheeling. However, each time the bolt is retracted, either by closing the door or by operating the inside handle, arm 8 and cam 9 serve to cam the link back to the operating position by reason of cam 9 striking projection 10. This is the principle of always insuring the door being unlocked unless special pains are taken to lock it with a key or in the way now to be described. By turning the outside handle to the retracted position when the door is open, and then slamming the door, this cam 9 is ineffective to return the operating link to its effective position in the way taught in the Ochsner Patent No. 1,331,166. The reason for this is that when the rollback 1 is turned down, lever 3 is swung and the link is caused to move to the right without operating the bolt. The lugs 10 gets out of range

of the operating cam when the door is slammed closed. This keyless locking coupled with the Ochsner safety feature of resetting the operating connections is described and claimed in the Andersen and Bowlus patent.

My improvement consists of an arrangement on this type or other types of locks whereby the inside handle may be optionally connected with the outside operating connections or directly to the bolt. This is achieved by providing on the forward end of the remote control link 11 a slotted head 12 provided with a guide slot 13 which straddles pin 14 which is riveted at 15 to the bolt 5. Between the bolt 5 and the head 12 is located a pivoted selector arm 16 that swings on pin 17. This selector arm is provided with the turned over tongues 18 which engage over the end of the head 12. The struck out point 19 in the selector arm is adapted to engage in struck out depressions 20 in the guide head 12. Spring 21 bearing against washer 22 tends to press the guide head and the selector arm together and against the side of the bolt 5 and thereby keep the struck out point 19 in one or the other of the depressions 20 in the guide head so as to keep it in the upper position or the lower position. The selector arm is shown in the upper position in Fig. 3 and the lower position in Fig. 1.

In the lower position shown in Fig. 1, the guide head and the remote control link 11 are connected directly to the bolt by virtue of the shoulder 23 hooking over pin 14. The remote control handle is now operated and it will always retract the bolt. If the operator of the car has children for whose safety he fears, he can take a tool like a screw driver and pass it through the opening 24 in the selvage plate 25 and catch the nub 26 on the end of the selector arm and flip the selector arm to the position shown in Fig. 3, or the uppermost position. Here it will be in position to hook over pivot pin 27 which connects the thrust link with the outside operating lever 3. In this position the inside handle operates the bolt only through the outside operating connections which are shiftable to the operative or inoperative position by means of the rod 28 which is usually operated with a push button in the garnish molding (not shown) of the door, or it may be operated by an outside key, as shown in the Andersen and Bowlus Patent No. 2,039,873. This Andersen and Bowlus type or the equivalent type of lock or, for that matter, even the type of lock which employs a dog for blocking the operation of the outside roll back can be provided with this selector

arrangement whereby the inside handle may be optionally connected directly with the latch bolt to operate in a normal way, or connected with the outside operating connections to be either blocked by a suitable dog or rendered ineffective to retract the bolt by disengaging the operating connections from the bolt.

This adjustment may be made for the car owner by the dealer when he delivers the car and the owner expresses his preference for or against the safety feature for the inside handle, or the owner of the car may easily make the adjustment, if this is explained to him by the dealer or by anyone else.

What I claim is:

1. In a lock, a casing, an outside roll back for connection with an outside handle, a bolt movable in the casing, operating connections between the outside rollback and the bolt, means for rendering said operating connection ineffective to retract the bolt for thereby locking the door, inside operating connections comprising a link and a head which can slide with respect to the bolt, and means for optionally fastening the head to the bolt so that the head cannot slide with respect to the bolt or to the outside operating connections so that the head can slide with respect to the bolt and operate the bolt only through the outside operating connections, said means comprising a selector arm on the head which may be moved to one position to directly engage a portion of the bolt and to the other position to directly engage a member of the outside operating connections.

2. In a lock, a casing, an outside rollback for connection with an outside handle, a bolt movable in the casing, operating connections between the outside rollback and the bolt, means for rendering said operating connections ineffective to retract the bolt for thereby locking the door, inside operating connections and selector means by which the inside operating connections can optionally be connected directly to the bolt or freed from the bolt and connected to the outside operating connections, the said casing provided with a selva plate having an opening for adjusting said selector means, the said inside operating connections and selector means comprising a guided head, a selector arm and a spring for packing the inside operating connections, the selector arm and the bolt together, and struck out points on the head and selector arm by which the selector arm may be temporarily held in one position or the other of its adjustment.

3. In a lock having a handle of the semi-free-

wheeling type, the combination of a casing, an outside rollback, an operating lever, a thrust link, a bolt slidable in said casing and having an abutment against which the thrust link engages, the said thrust link being pivoted to the lever by a pin, a pin on the sliding bolt, an inside remote control link having at its forward end a guided head adapted to straddle the pin projecting from the bolt, and a selector arm pivoted to the said head which may engage the pin on the bolt to directly retract the bolt, or may be shifted to engage the pivoted pin on the link and lever for disengagement from the bolt and direct connection with the outside operating connections.

4. In a lock having a handle of the semi-free-wheeling type, the combination of a casing, an outside rollback, an operating lever, a thrust link, a bolt slidable in said casing having an abutment against which the thrust link engages, the said thrust link being pivoted to the lever by a pin, a pin on the sliding bolt, an inside remote control link having at its forward end a guided head adapted to straddle the pin projecting from the bolt, and a selector arm pivoted to the guided head and which may engage the pin on the bolt to directly retract the bolt, or may be shifted to engage the pivot pin on the link and lever for disengagement from the bolt and direct connection with the outside operating connections, and detent devices for holding the selector arm in either position.

5. In a lock having a handle of the semi-free-wheeling type, the combination of a casing, an outside rollback, an operating lever, a thrust link, a bolt slidable in said casing having an abutment against which the thrust link engages, the said thrust link being pivoted to the lever by a pin, a pin on the sliding bolt, an inside remote control link having at its forward end a guided head adapted to straddle the pin projecting from the bolt, and a selector arm pivoted to the sliding guided head and which may engage the pin on the bolt to directly retract the bolt, or may be shifted to engage the pivot pin on the link and lever for disengagement from the bolt and direct connection with the outside operating connection, and detent devices for holding the selector arm in either position, the said selector arm having a nub on its arm and the said casing having a selva plate provided with an opening therethrough by which a tool may be introduced to engage the selector arm to flip it to one position or the other of its adjustment.

EMORY GLENN SIMPSON.