Aug. 31, 1926. 1,597,723

E. COLLINS

LATCH FOR VEHICLE DOORS

Filed Oct. 15, 1925

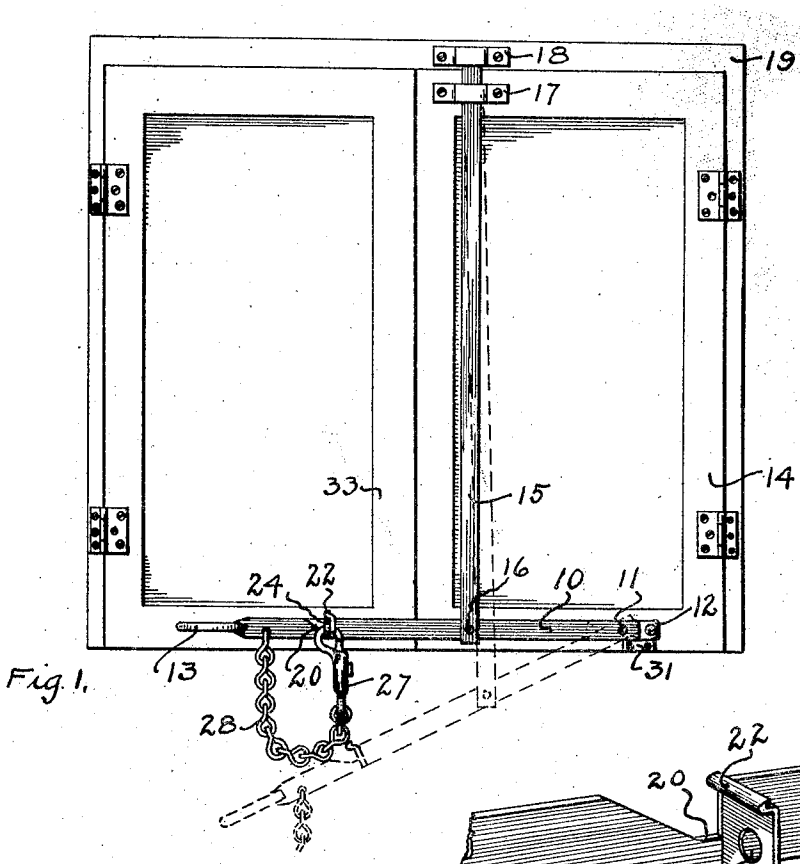
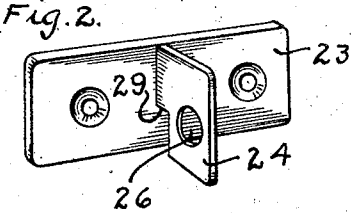



Fig. 1.




Fig. 3.

Fig. 2.



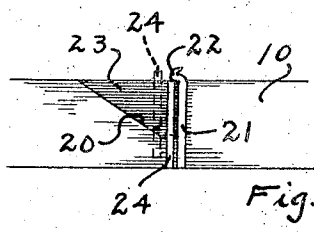
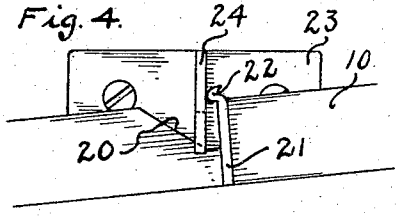




Fig. 5.

Fig. 4.




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# UNITED STATES PATENT OFFICE.

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## LATCH FOR VEHICLE DOORS.

Application filed October 15, 1925. Serial No. 62,529.

My invention relates to latch means and particularly to means for latching doors as are found on motor trucks.

It is the purpose of my invention to provide such a latch means whereby the doors may be securely held in a closed position, that may be manufactured at a very low cost and possess extreme simplicity, and such that may be attached to a wide range of door constructions. A further object is to provide means whereby the latch bar may be held in a closed position preliminary to the affixing of a lock.

I accomplish these and such minor objects as will be apparent in the following description, by the means as illustrated in the accompanying drawing, in which—

Fig. 1 is an elevation of my latch as applied to a set of double doors; Fig. 2, an enlarged perspective view of the lock-plate; Fig. 3, an enlarged perspective fragmentary view of that portion of the latch-bar engaging with the lock-plate; Fig. 4, a fragmentary elevation of the latch-bar contacting the lock-plate; and Fig. 5, a similar fragmentary elevation showing the latch-bar engaged with the lock-plate.

Like characters of reference indicate like parts throughout the several views of the drawing.

Referring to the drawing, Fig. 1, I form a latch-bar 10 having one end pivotally secured by the rivet 11 to the hinge-plate 12, and the other end formed as a handle 13. The hinge-plate 12 is attached to the door 14 near its lower edge.

I pivotally secure the vertical plunger-bar 15 to the latch-bar 10 by the rivet 16, such that by swinging the latch-bar 10 about its pivot, the plunger-bar 15 may be raised or lowered as indicated by the dash lines in Fig. 1. The upper end of the plunger-bar 15 is guided by the strap 17 which is attached to the door 14, and a socket 18 is attached to the door frame 19 and so aligned with the strap 17 that the plunger-bar 15 may enter the socket 18 by raising the latch-bar 10. A stop 31 is secured to the door to limit the downward travel of the plunger-bar 15.

Near the handle end of the latch-bar 10, I form a notch 20, as best shown in Fig. 3, and projecting outwardly from that edge of the notch toward the pivot end of the latch-bar 10, is a lug 21 having an ear 22 turned over from the top edge of the lug toward the notch.

A lock-plate 23, Fig. 2, is secured to the door 33, such that when the latch-bar 10 is swung up to a horizontal position, the normally projecting catch 24 is parallel to, and in approximate contact with the lug 21 on the side toward the handle of the latch-bar 10. Both the lug 21 and the catch 24 are provided with holes 25, and 26 that match in this position so that a padlock (not shown) or any other securing means may be passed through both holes. I here show, Fig. 1, a snap fastener 27 passed through both the lug 21 and the catch 24, and attached to the latch-bar 10 by the chain 28 for convenience.

Particular attention is called to the means I employ to hold the latch-bar 10 in a horizontal locked position before any device is passed through the holes 25 and 26.

The catch 24, projecting normally from the plate 23, is provided with a slot 29 to receive the neck of the latch-bar 10 at the bottom of the notch 20, thereby preventing either door from swinging outwardly. As the latch-bar 10 is swung up onto the catch 24, the ear 22 contacts the catch 24, as in Fig. 4, and the inclined edge of the notch 20 starts up under the slot 29. Further travel of the latch-bar 10, causes the catch 24 to contact firmly by the upper edge of the slot 29 on the inclined edge of the notch 20 at the same time the ear 22 is pressing snugly against the face of the catch 24, and by jerking the latch-bar 10 upwardly, the ear 22 will spring over the top of the catch 24 and permit it to travel sideways off the inclined edge of the notch 20 to contact the lug 21. There is always sufficient play in the door hinges to permit the slight side travel so required. The catch 24 is thus engaged to the latch-bar 10, and its disengagement is prevented normally by the ear 22 holding the catch 24 downwardly in the notch 20 so that the catch 24 can not travel sideways outwardly on account of the inclined edge of the notch 20. A quick jerk downwardly will release the latch-bar 10, when so desired.

The same construction may be employed on a single door as well as on the double door construction here shown, and while I have here shown my invention in the form now best known to me, it is obvious, that the

structure may be varied without departing from the spirit of the invention, and I, therefore, do not desire to be limited to the precise construction as shown, nor any more than may be necessitated by the accompanying claims.

I claim:

1. The combination of a latch-bar pivoted by one end and having a notch formed from the top side near the opposite end, said notch having the side toward the pivoted end of the latch-bar normal to the edge of the bar and the other side of the notch being cut at an acute angle from the bar edge, a lug projecting from the face of the latch-bar, an ear extending from the lug, a latch-plate, a catch normally projecting from said latch-plate and having a slot cut from its lower edge, said slot serving as a guide for said latch-bar along said notch, and said catch being adapted to be contacted by said ear and held within said notch by said ear engaging with the catch.

2. The combination of a latch-bar pivoted by one end and having a notch formed from the top side near the opposite end, said notch having the side toward the pivoted end of the latch-bar normal to the edge of the bar and the other side of the notch being cut at an acute angle from the bar edge, a lug projecting from the face of the latch-bar, an ear extending from the top edge of the lug, a lock-plate, a catch normally projecting from said lock-plate and having a slot cut from its lower edge, said slot serving as a guide for said latch-bar along said notch, and said catch being adapted to be contacted by said ear and held within said notch by said ear engaging with the catch, and a stop limiting the downward travel of the latch-bar.

3. The combination of a lock-bar pivoted by one end and having a notch formed from the top side near the opposite end, said notch having the side toward the pivoted end of the lock-bar normal to the edge of the bar and the other side of the notch being cut at an acute angle from the bar edge, a lug projecting from the face of the lock-bar, an ear extending from the top edge of the lug, a latch-plate, a catch normally projecting from said latch-plate and having a slot cut from its lower edge, said slot serving as a guide for said lock-bar along said notch, and said catch being adapted to be contacted by said ear and held within said notch by said ear engaging with the catch, and a plunger-bar pivotally secured to the lock-bar.

In testimony whereof I affix my signature.

ERD COLLINS.