

C. WEBER.
CAR DOOR LATCH.
APPLICATION FILED MAR. 13, 1911.

1,009,001.

Patented Nov. 14, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

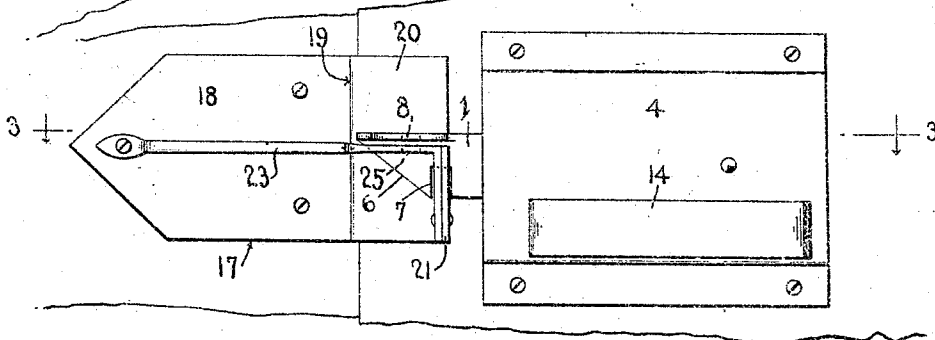
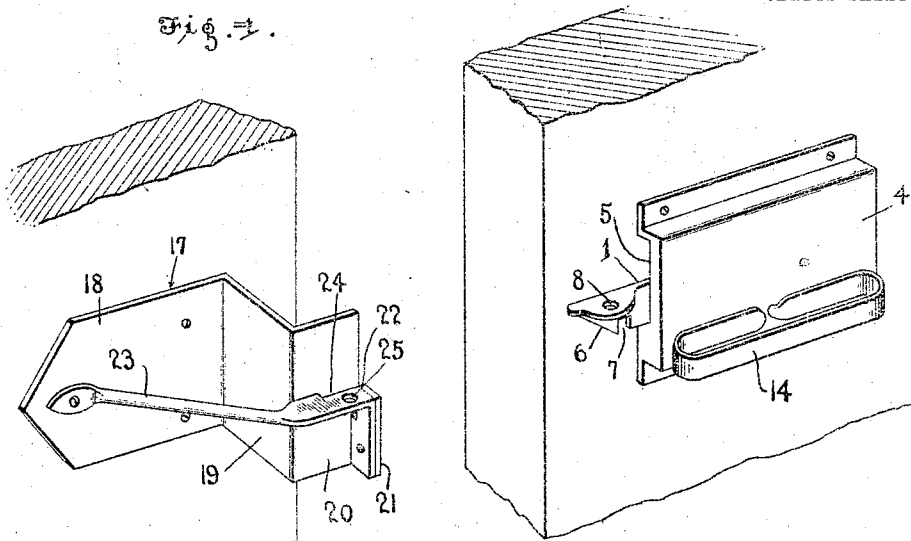
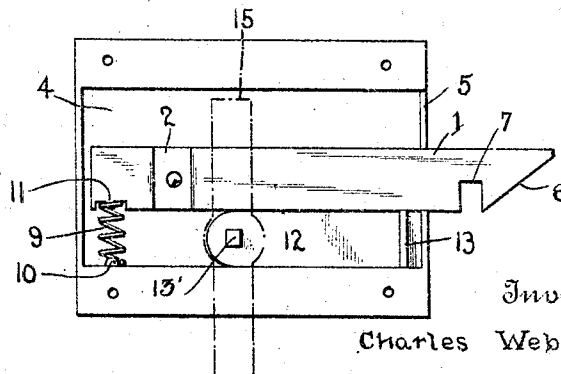


Fig. 2.

Fig. 5.



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2 SHEETS-SHEET 2.

Fig. 3.

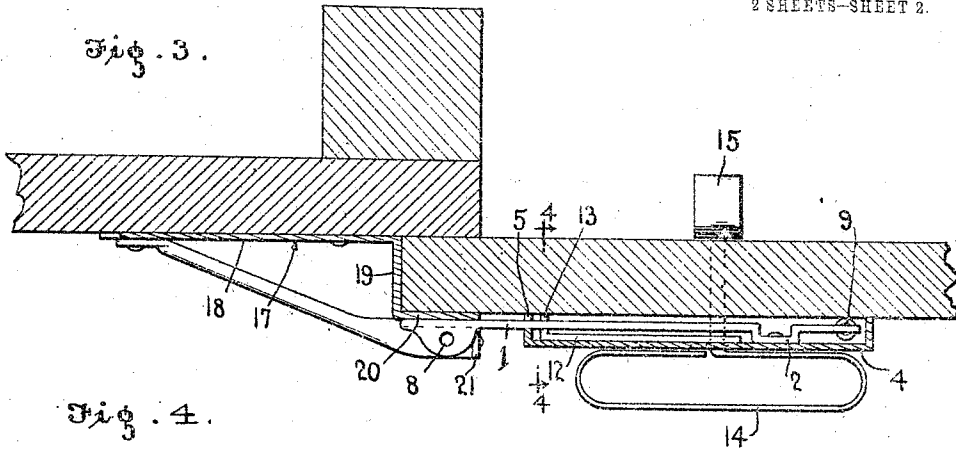


Fig. 4.

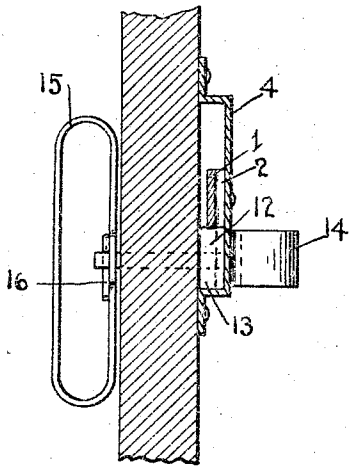


Fig. 5.

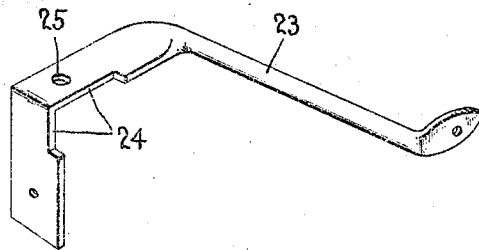


Fig. 6.

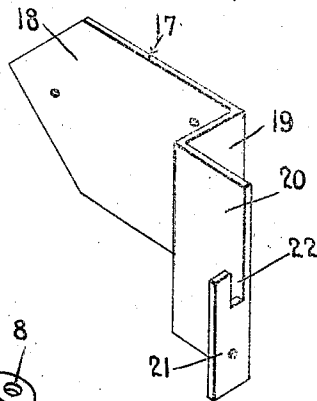
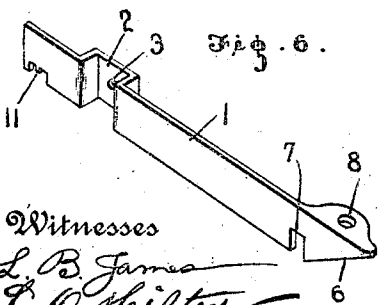


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES WEBER, OF SARANAC, MICHIGAN.

CAR-DOOR LATCH.

1,009,001.

Specification of Letters Patent.

Patented Nov. 14, 1911.

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To all whom it may concern:

Be it known that I, CHARLES WEBER, a citizen of the United States, residing at Saranac, in the county of Ionia and State of Michigan, have invented certain new and useful Improvements in Car-Door Latches; and I do 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 car door latches.

One object of the invention is to provide a latch of this character which will automatically catch when the door is closed and to which may be applied any suitable lock or seal whereby the door is securely locked or sealed in closed position.

Another object is to provide a latch of this character, the keeper member of which is arranged to form a stop to limit the closing movement of the door.

With these and other objects in view the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings: Figure 1 is a perspective view of a portion of a car door and side of the car showing the application of the invention and the position of the parts when the door is partly open; Fig. 2 is a side view of a portion of the door and car with the parts in closed position; Fig. 3 is a horizontal sectional view on the line 3—3 of Fig. 2; Fig. 4 is a vertical sectional view on the line 4—4 of Fig. 3; Fig. 5 is an inner side view of the casing for the catch member of the latch; Fig. 6 is a detail perspective view of the catch member of the latch; Fig. 7 is a similar view of the combined stop and keeper member of the latch; Fig. 8 is a similar view of the brace for said combined stop and keeper member.

My improved car or sliding door latch comprises a catch 1 constructed in the form of a flat bar having one end bent to form a rectangular offset recess 2 in which is arranged a pivot hole 3 whereby the catch bar is pivotally secured to the inner side of a casing 4 arranged on and fastened to the outer side of a door as shown. The outer end of the catch bar projects through a notch 5 formed in one end of the casing and

has the lower edge of its outer end beveled or inclined as shown at 6 for facilitating the automatic engagement of the bar with a keeper hereinafter described. At the inner end of the beveled portion of the bar is formed a locking notch 7 which engages the keeper and thus fastens the door in closed position. On the upper edge of the upper end of the catch bar is formed an apertured lug 8 which is adapted to engage a similarly apertured portion of the keeper brace of the latch for a purpose hereinafter described.

The latch 1 is yieldingly held in position to be engaged with the keeper when the door is closed by a coiled spring 9 arranged in the casing 4 and having its lower end held in position by a stud 10 and its upper end held in engagement with the catch bar by a stud 11 formed on the inner edge of the bar as shown. In order to lift the outer end of the catch bar against the pressure of the spring 9 and to disengage the bar from the keeper, I provide a suitable catch lifting mechanism comprising an arm 12 arranged in the lower portion of the casing below the bar 1 and having on one end a right angular lug 13 which is disposed transversely of the casing below the catch bar 1 as clearly shown in Figs. 3, 4 and 5 of the drawing. The opposite end of the arm 12 is secured to an operating shaft 13' arranged through the casing 4 and adjacent portion of the bar. The end of the shaft 13' adjacent to the outer side of the casing 4 has arranged thereon a handle 14 said handle being preferably formed by an extension of the shaft, said extension being flattened and bent first in one direction and then the other to form an elongated loop which may be readily grasped and operated to turn the shaft in the proper direction for swinging the catch lifting arm 12 upwardly thus swinging the catch up against the pressure of the spring 9 and out of engagement with the keeper. The opposite end of the shaft 13' projects a suitable distance beyond the opposite inner side of the bar and has removably engaged therewith a handle 15 said handle being in the form of a flat bar bent into the shape of an elongated loop and having arranged in one side a rectangular passage to receive the square end of the shaft to which said handle is secured by a cotter pin 16 or other suitable fastening device.

Adapted to be engaged by the catch bar when the door is in closed position is a com-

bined stop and keeper comprising a flat plate 17 bent at right angles intermediate its ends to form a flat attaching member 18 which is bolted or otherwise secured to the side of the car near the edge of the door opening therein. The right angularly projected portion of the plate 18 forms a stop 19 and has its outer end bent at a right angle as shown at 20. By thus arranging the stop portion of the keeper said portion will receive the door when brought to a closed position and will limit the further movement of the door as well as hold the latter against lateral or outward swinging movement.

Formed on the edge of the lower portion of the right angular end of the stop plate is a keeper lug 21 in the upper end of which is formed a notch 22 adapted to receive the notched end of the catch when brought into engagement therewith by the closing of the door. The stop plate and keeper lug are firmly braced by a brace rod 23 the inner end of which is secured to the plate 18 and the outer end of which is flattened and bent at right angles to fit against the outer side of the keeper lug 20 to which said flattened end of the brace bar is riveted or otherwise rigidly secured. In the inner edge of the right angular flattened portion of the brace bar is formed a notch 24 the lower portion of which coincides with the notch 22 in the keeper lug 21 and is adapted to receive the end of the catch bar when engaged with the keeper. In the horizontal portion of the flattened end of the brace bar is formed a hole or passage 25 with which the aperture in the sealing lug 8 of the catch bar 1 is adapted to register. With the aligned holes in the sealing lug 8 and adjacent portion of the brace 23 is adapted to be engaged any suitable form of seal or a padlock whereby a catch bar will be locked or sealed in engagement with the keeper and the door thus prevented from being unfastened by an unauthorized person.

By constructing the catch bar and keeper of the latch as herein shown and described it will be seen that when the door is brought to a closed position that the beveled end of the catch bar will engage the lower edge of

the notch 22 in the catch bar and thus cause the notch 7 therein to engage the notches in the keeper lug and end of the brace 23 thereby automatically fastening the door.

From the foregoing description taken in connection with the accompanying drawings the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claim.

Having thus described my invention, what I claim is:

A sliding door latch comprising a casing adapted to be secured to the door, a catch bar operatively mounted in said casing, said bar having a beveled and notched outer end, an apertured sealing lug formed on said ends of the catch bar, handles operatively connected with said bar, a combined door stop and keeper comprising a plate adapted to be secured in position to receive the door, said plate having one end bent outwardly and longitudinally to form a right angularly shaped door receiving portion whereby the closing movement of the door is limited and the lateral movement of the same prevented, a notched keeper plate formed on the outer end of said stop plate and adapted to receive the notched end of the catch bar when the door is closed, a brace secured at one end to the attaching portion of said stop plate and at its other end to said keeper plate, said brace bar having in its end adjacent to the keeper plate a notch coinciding with the notch in said plate and an aperture adapted to register with the aperture in the sealing lug of the catch bar when the latter is engaged with the keeper plate.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES WEBER.

Witnesses:

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JUS WALLINGTON.