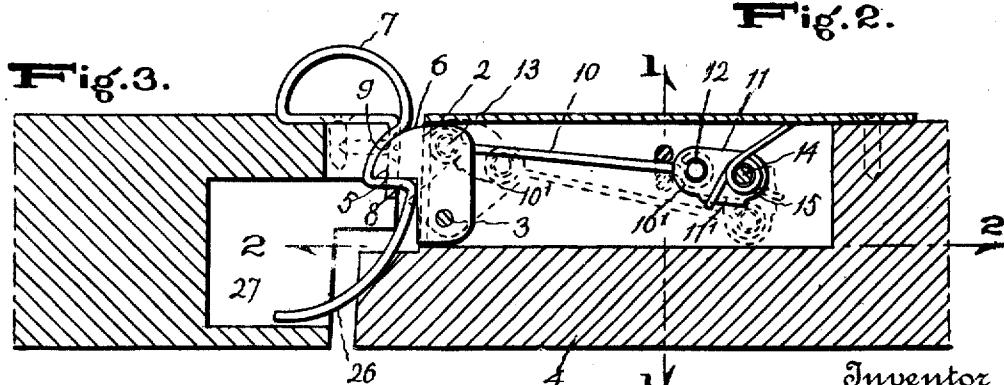
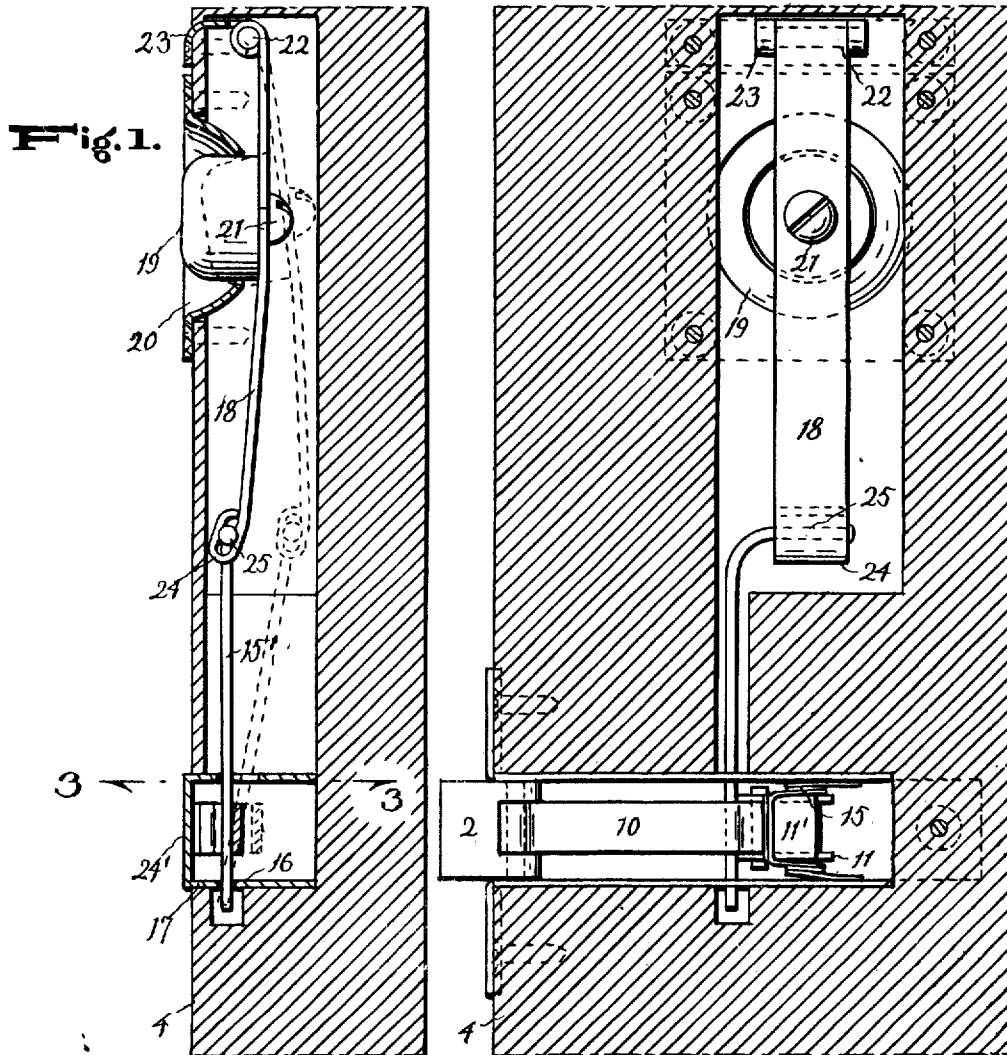


1,242,749.

Patented Oct. 9, 1917.



Witness
Stuart Hilder.

By

Inventor
George W. Wells,
E. W. Anderson for
his Attorney.

UNITED STATES PATENT OFFICE.

GEORGE W. WELLS, OF AMESBURY, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO WALKER-WELLS COMPANY, OF AMESBURY, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

DOOR-LATCH.

1,242,749.

Specification of Letters Patent.

Patented Oct. 9, 1917.

Application filed January 29, 1917. Serial No. 145,174.

To all whom it may concern:

Be it known that I, GEORGE W. WELLS, a citizen of the United States, resident of Amesbury, in the county of Essex and State of Massachusetts, have made a certain new and useful Invention in Door-Latches; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical section of the invention as applied on the line 1—1, Fig. 3.

Fig. 2 is a vertical transverse section of the same on the line 2—2, Fig. 3.

Fig. 3 is a horizontal section of the same on the line 3—3, Fig. 1.

The invention has relation to door latches, designed particularly for open-body or touring cars and having for its object certain improvements upon the device of the Patent No. 1,184,498, dated May 23, 1916, and it consists in the novel construction and combination of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the numeral 2 designates the bolt, pivoted at one side thereof at 3 to the door 4 and having an outwardly projecting portion provided with a flat face 5 and a beveled face 6, cooperating, in the projected position of the bolt, with a keeper spring 7 upon the door casing or jamb, said spring being usually of strap metal and having a flat face 8 and a beveled face 9, forming a recess and engaging respectively the flat and beveled faces of said bolt.

The bolt is held rigidly in projected position by normally aligned toggle levers 10 and 11, pivoted together at 12, the lever 10 being pivoted to the bolt at 13, at one side of the pivot 3, and the lever 11 being pivoted to the door at 14, a spring 15 serving to hold said bolt yieldably in projected position when the toggle is broken, and to return the toggle levers to normal aligned position when the open door is closed.

Preferably, the toggle lever 10 is longer than the lever 11, and made of strap metal, with an eye 10' at each end thereof, the lever 11 being made of two parallel portions, spaced apart and having a transverse

connection 11', the spring 15 being coiled around the ends of the pivot 14, having stop engagement at its free ends against the door and at its middle portion passing across the connection 11' and embracing the lever 11.

In order to initially break or bow the toggle, to release the bolt and enable it to be retracted by pressure of the door when opened, an upright rod 15' has at its lower end a fulcrum bearing within a perforation 16 of a plate 17, and at its upper end an operative connection 18 with a push button 19, seated in a lateral recess 20 of the door and movable laterally to press the upper end of said rod inwardly, upon its lower fulcrum as a center, to exert a lateral pressure upon the toggle levers near the joint thereof.

The connection 18 is preferably a metal strap, screwed fast at 21 to the back of the push button and having at its upper end a pivotal connection 22 with a member 23, screwed to the door, said strap having at its lower end an eye or loop 24, engaged by a lateral bend 25 of the upper end of the rod. The plate 17 is usually the bottom plate of a casing 24' for the toggle levers and latch bolt.

The push button being pressed inwardly, the rod 15' is moved as stated, and the toggle slightly broken or bowed, the movement of the bolt inward being also slight and the door being retained in latched position, with the bolt in engagement with its keeper.

The door being moved to open, and the flat face of the keeper engaging the flat face of the bolt, the bolt will be pressed inwardly or retracted within its casing and the toggle completely bowed, as shown in dotted lines, Fig. 3.

The door being opened, the toggle levers and the bolt will at once be returned to normal position by the action of the spring, said spring also returning the rod 15' and its push button connection to normal position.

The door being now closed, the inner beveled portion 26 of the keeper spring will contact with the outer beveled face of the bolt, and the keeper spring moving laterally or inwardly in the slot 27 of the door, the bolt will again become seated in the recess formed by the flat face and the beveled face of the keeper.

I claim:

1. In a door latch, a movable door mem-

ber and a stationary jamb member, a bolt, means including a movable element for normally holding said bolt rigidly in projected position, hand-operated means for moving said element to released position, and a spring for holding said bolt yieldably in projected position when said element is released, for returning said element to normal position and for returning said hand-operated means to normal position, carried by one of said members, and means carried by the other of said members engaging and operating to retract said bolt when the door is opened.

2. In a door latch, a bolt, means including a movable element for normally holding said bolt rigidly in projected position, hand-operated means for moving said element to released position, and a spring cooperating with and directly engaging said element for holding the bolt yieldably in projected position when said element is released, for returning said element to normal position, and for returning said hand-operated means to normal position.

3. In a door latch, a bolt, means for holding said bolt rigidly in projected position, including normally alined toggle levers one of which is pivotally engaged at its outer end with said bolt, hand-operated means for bowing said levers upon their outer pivots as centers, and a spring cooperating with said toggle levers for holding the bolt yieldably in projected position when said toggle levers are bowed, for returning said toggle levers to normal position and for returning said hand-operated means to normal position.

4. In a door latch, a bolt, means for hold-

ing said bolt rigidly in projected position, including normally alined toggle levers one of which is pivotally engaged at its outer end with said bolt, a laterally movable member having at one end a fulcrum bearing and at its other end a push button connection for bowing said levers upon their outer pivots as centers, and a spring cooperating with said toggle levers for holding the bolt yieldably in projected position when said toggle levers are bowed, for returning said toggle levers to normal position and for returning said lever and push button to normal position.

5. In a door latch, a bolt, means for holding said bolt rigidly in projected position, including normally alined toggle levers one of which is pivotally engaged at its outer end with said bolt, hand-operated means for bowing said levers upon their outer pivots as centers, including a laterally movable member having at one end a fulcrum bearing, and a push button having a pivotal member fast thereto and at one end having pivotal connection with the other end of said laterally movable member, and a spring cooperating with said toggle levers for holding the bolt yieldably in projected position when said toggle levers are bowed, for returning said toggle levers to normal position and for returning said hand-operated means to normal position.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. WELLS.

Witnesses:

LENA J. BROWN,
DAVID J. CORMACK.