

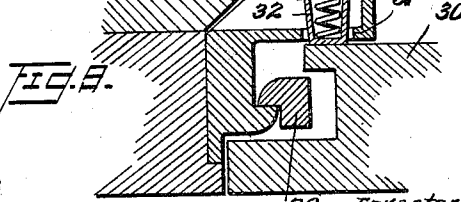
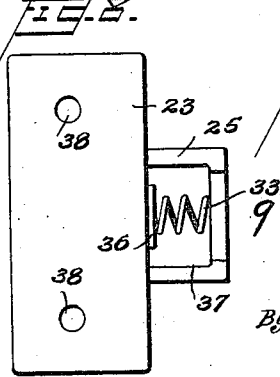
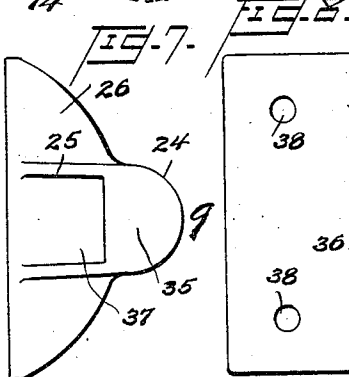
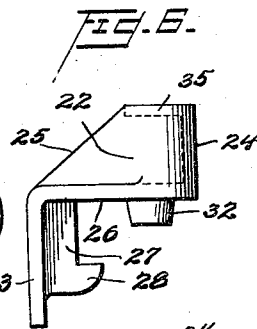
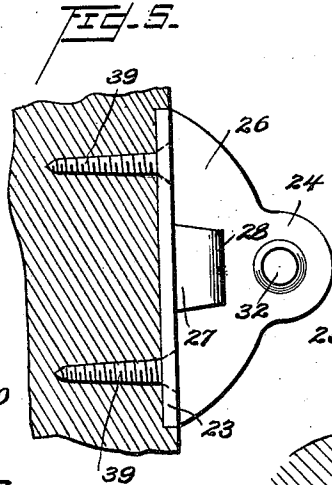
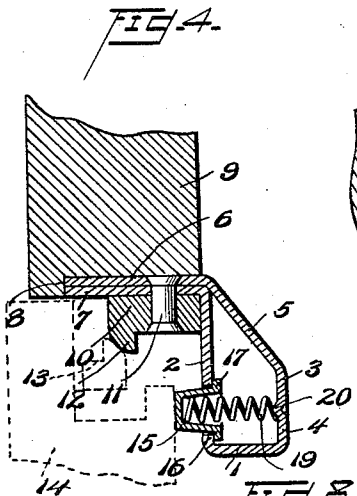
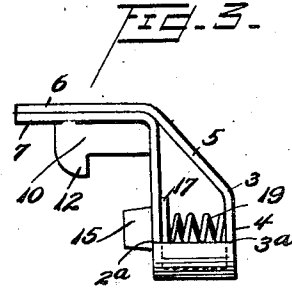
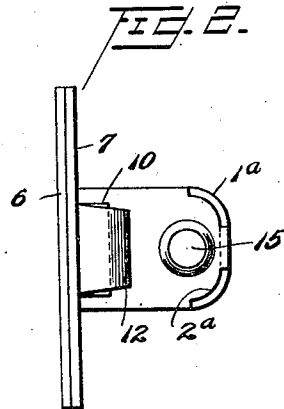
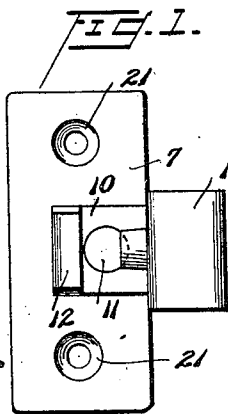
Jan. 1, 1924

1,479,398

J. C. OLLARD

COMBINED DOOR CATCH AND BUFFER

Original Filed Oct. 28, 1920



Inventor
James C. Ollard,
By *[Signature]*
Att'y

Patented Jan. 1, 1924.

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UNITED STATES PATENT OFFICE.

JAMES C. OLLARD, OF CHESTER, PENNSYLVANIA.

COMBINED DOOR CATCH AND BUFFER.

Application filed October 28, 1920, Serial No. 420,228. Renewed May 1, 1923. Serial No. 513,552.

To all whom it may concern:

Be it known that I, JAMES C. OLLARD, a citizen of the United States, residing at Chester, in the county of Delaware and State of Pennsylvania, have invented new and useful Improvements in Combined Door Catches and Buffers, of which the following is a specification.

The invention relates to a combined door catch and buffer.

One of the annoying features of a Ford car is the necessity for closing the door with a bang. The nature of the door latch compels this excessively noisy closing. The door latch as designed must fit into an absolutely snug and tight fitting latch cavity and this necessitates the noisy closing of the door.

It is an object of the present invention to provide a combined buffer and door catch designed to cooperate with the door latch of a Ford or other car and adapted to permit the door to be closed slowly and gently and at the same time to be positively and securely fastened.

Another object of the present invention is to provide a simple, practical and efficient combined door catch and buffer of strong, durable and inexpensive construction designed particularly for use on Ford cars, but adapted also to be advantageously employed on various other makes of automobiles and also on all door frames of any make for cushioning a door and for maintaining the same in tight engagement with the latch or keeper to prevent noise and rattling, while at the same time maintaining the door firmly in locked engagement.

It is also an object of the invention to provide a combined door catch and buffer of this character adapted to be constructed of either pressed steel or similar material or as a casting and designed for use on stop-less door frames where the face or edge of the door frame is made plain without a rabbet to receive a free portion of the door.

A further object of the invention is to provide a combined door catch and buffer in which, when the same is constructed of pressed steel, the parts may be securely fastened in assembled relation by a single rivet or similar fastening means and in which the catch or keeper member may be constructed of a drop forging, or other material, and will be arranged to brace and support the pressed steel portions.

With these and other objects in view, the invention consists in the novel construction, combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion, and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings in which like characters of reference designate corresponding parts in the several figures:—

Figure 1 is a side elevation of a combined door catch and buffer embodying the invention and constructed of pressed steel.

Figure 2 is a front elevation of the same.

Figure 3 is a plan view of the combined door catch and buffer.

Figure 4 is a central horizontal sectional view of the same.

Figure 5 is a front elevation of a combined door catch and buffer consisting of a casting and shown applied to a door frame, the latter being in section.

Figure 6 is a plan view of the combined door catch and buffer shown in Figure 5.

Figures 7 and 8 are elevations of the same.

Figure 9 is a horizontal sectional view on the line 9—9 of Figure 8.

Referring particularly to Figures 1 to 5 inclusive of the drawings in which the combined door catch and buffer is constructed of pressed steel, a single piece of pressed steel or other suitable material is bent intermediate of its ends to form an end connecting wall 1 and front and rear walls 2 and 3, the rear wall 3 having an outer portion 4 in parallelism with the front wall 2 and an inner portion 5 arranged at an angle to the parallel portion 4 and extending therefrom to the front wall 2 at the inner portion thereof to form with the said front wall 2 a casing having an outer substantially U-shaped portion and an inner or V-shaped portion. The terminals 6 and 7 of the pressed steel are bent at right angles to the front wall to form attaching portions and provide a two ply attaching member. The attaching member which is secured in a recess 8 in the door frame 9, is disposed at right angles to the inner wall 2 and a catch or keeper 10 is secured in the angle by a

single rivet 11 which also secures the terminal portions 6 and 7 of the pressed steel together and to the catch or keeper. The rivet pierces the said terminal portions and the catch or keeper and its terminals are headed and countersunk in the material as clearly shown in Figure 4 of the drawings, but one or more fastening devices may be of course employed and any suitable form of fastening device may be used for connecting the terminals of the pressed steel and for securing the catch or keeper to the same.

The catch or keeper which preferably consists of a drop forging, may be constructed of any other suitable material and it is provided with a lug or projection 12 rounded or beveled at the front and forming a shoulder at the back for engaging with the latch 13 of a door 14. The catch or keeper 10 presents flat faces to the attaching member and to the inner wall of the casing and it braces and supports the pressed steel at an angle formed by the attaching member and the casing.

The latch 13 of the door 14 is maintained firmly in engagement with the catch or keeper 10 by a spring pressed door engaging member 15 which is in the form of a tapered hollow cap. The hollow cap extends through an opening 16 in the front wall of the casing and is provided with a stop flange 17 and receives one end of a coiled spring 19. The coiled spring 19 which may be tapered or cylindrical has its other end seated against the rear wall 3 which is preferably provided with the protuberance 20 formed by indenting the outer portion 4 of its wall 3 as shown. The connecting end wall 1 is preferably split at the opposite edges of the strip or piece of pressed steel to form upper and lower portions 1^a which are preferably curved as shown in Figure 2 and arranged in recesses or cut away portions 2^a and 3^a of the front and rear walls to form rounded upper and lower corners at the front of the casing. The door in closing engages its latch with the catch or keeper 10 and presses the door engaging member 15 inwardly compressing the spring 19 and placing the same under sufficient tension to maintain the latch of the door firmly in engagement with the projecting portion of the catch or keeper 10.

The device is adapted for use on all kinds of door frames but is especially adapted for Ford cars and the two ply attaching member is provided with a plurality of perforations 21 preferably located above and below the catch or keeper as shown in Figure 1 for the reception of screws or other suitable fastening devices for securing the combined door catch and buffer to the door frame.

In Figures 5 to 9 inclusive, is illustrated a form of the invention in which the casing 22

and the attaching member 23 are formed of a single casting. The casing, which is preferably rounded or substantially semi-circular at the outer end at 24, is tapered at the inner portion at 25 and is provided at the angle formed by the attaching member and the front wall 26 of the casing with a catch or keeper 27 bracing and reinforcing the device at the said angle and provided with a projecting lug 28 for engagement by the latch 29 of the door 30. The front wall 26 is provided with an opening 31 through which extends a tapered hollow cap 32 forming a door engaging member and actuated by a coiled cushioning spring 33 extending into the hollow cap and bearing at one end against the same and at its other end against a protuberance 34 of the rear wall 35. The hollow cap is provided at its inner end with a stop flange 36 to limit the outward movement of the door engaging member and the angularly disposed portion of the rear wall shown in the form of the invention illustrated in Figures 1 to 4 inclusive is omitted in the form illustrated in Figures 5 to 9 inclusive to provide an opening 37 for assembling the parts. In the form of the invention shown in Figures 1 to 4, the casing is open at the top and bottom as shown and permits the rotary assembling of the door engaging member and the spring. The attaching member of the device is provided with perforations 38 for the reception of screws 39 for attaching the device to the door frame.

It will be seen that by enlarging the space or cavity between the inner edge of the catch or keeper and the casing of the buffer to receive the engaging portion of the latch of the door that the door is adapted to be closed slowly and gently without force or sound and its latch positively engaged with the catch or keeper. This will eliminate all noise in closing and the buffer which cushions the closing of the door will maintain the latch thereof firmly against the catch or keeper so that there will be no noise or rattling resulting from the enlarging of the latch-receiving cavity.

What is claimed is:—

1. A combined door catch and buffer comprising a casing composed of inner and outer walls and a connecting wall or portion, said casing being provided at the inner wall with an opening and having an attaching member arranged at an angle to the inner wall, a catch or keeper located at the said attaching member and adapted to be engaged by the latch of a door, and an anchored door engaging member extending through the opening of the front wall and arranged to be placed under tension by the door for holding the latch of the latter in engagement with the catch or keeper.

2. A combined door catch and buffer com-

prising a casing composed of inner and outer walls and a connecting wall or portion, said casing being provided at the inner wall with an opening and having an attaching member arranged at an angle to the inner wall, a catch or keeper located at the angle formed by the attaching member and extending along the same from the front wall and provided with a projecting portion adapted to be engaged by the latch of a door, and a cushioned door engaging member extending through the opening of the front wall of the casing.

3. A combined door catch and buffer comprising a casing having a front opening and provided with a tapered inner portion and having an attaching member extending from the tapered inner portion at right angles thereto, said casing being open at the tapered portion, a catch or keeper located at the attaching member and arranged to be engaged by the latch of a door, and a cushioned door engaging member carried by the casing and arranged to be engaged by the door for holding the latch thereof against the catch or keeper.

4. A combined door keeper and casing comprising a casing constructed of a single piece of metal bent to form an end wall and inner and outer side walls and having its terminal portions fitted together and bent at an angle to the casing to form a two ply attaching portion, a catch or keeper and fastening means piercing the catch or keeper and the terminal portions of the metal of the casing and securing the said parts together.

5. A combined door catch and buffer comprising a casing constructed of a single piece of metal bent to form an end wall and inner and outer side walls and having its terminal portions fitted together and bent at an angle to the casing to form a two ply attaching portion, a catch or keeper fitted in the angle formed by the attaching member and extending along the latter, a fastening device piercing the catch or keeper and the terminal portions of the metal of the casing said casing being tapered at its inner portion and

being open thereat, and a cushioned door engaging member carried by the casing.

6. A combined door catch and buffer comprising a casing constructed of a single piece of metal bent to form front and rear walls and a connecting end wall, the latter being split at opposite sides adjacent the front and rear walls and the split portions being bent inwardly against the said front and rear walls, said front and rear walls having recesses receiving the split portions of the end wall, a catch carried by the casing and arranged at an angle to the same, and a cushioned door engaging member also mounted on the casing.

7. A combined door catch and buffer comprising a casing constructed of a single piece of metal bent to form front and rear walls and a connecting end wall, the latter being split at opposite sides adjacent the front and rear walls and the split portions being bent inwardly against the said front and rear walls, said front and rear walls having recesses receiving the split portions of the end wall, and the terminals of the metal of the casing being bent at right angles to the same to form an attaching member, a catch or keeper secured to the attaching member, a door engaging member extending through the front wall of the casing and a spring arranged within the casing and cushioning the door engaging member.

8. A combined door catch and buffer comprising a fixed catch located at the frame or jamb of the door and a buffer having cushioning means and extending from the catch at an angle thereto and provided with an engaging portion spaced inwardly from the catch, a distance materially greater than the size of the latch of a door, whereby the door is adapted to be closed slowly, gently, noislessly, the cushioning means being arranged to maintain the latch of the door firmly in engagement with the said fixed catch.

In testimony whereof I have hereunto set my hand.

JAMES C. OLLARD.