

L. A. BEDARD.
 BUFFER FOR AUTOMOBILE DOORS.
 APPLICATION FILED JULY 12, 1911.

Patented Apr. 9, 1912.

1,022,651.

Fig. 1.

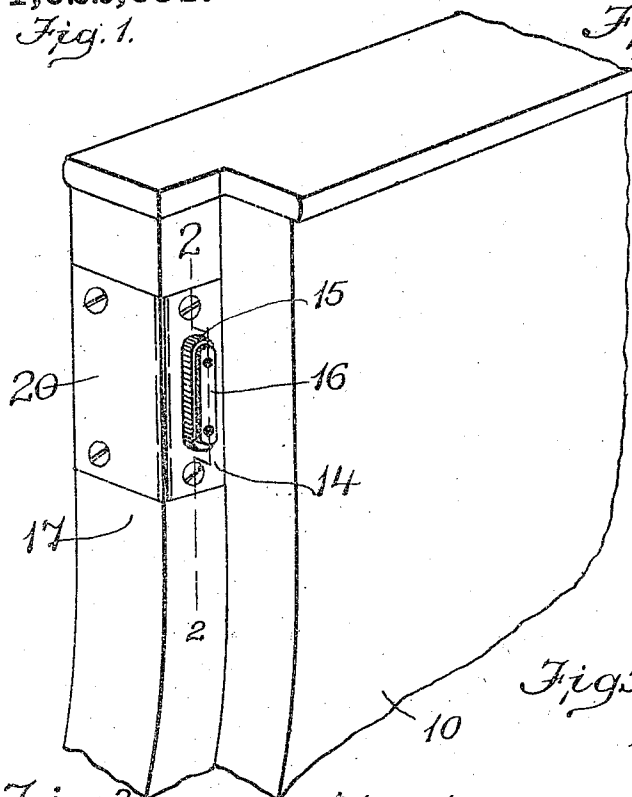


Fig. 2.

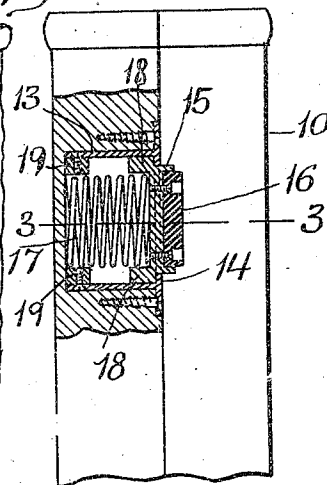


Fig. 5.

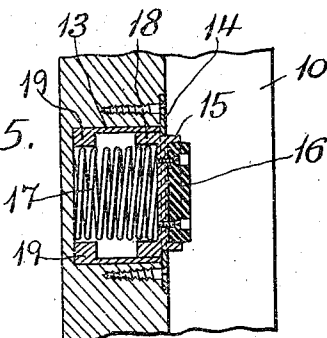


Fig. 3.

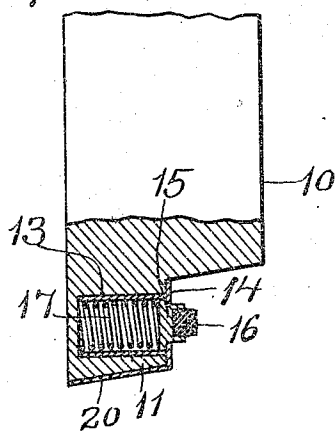
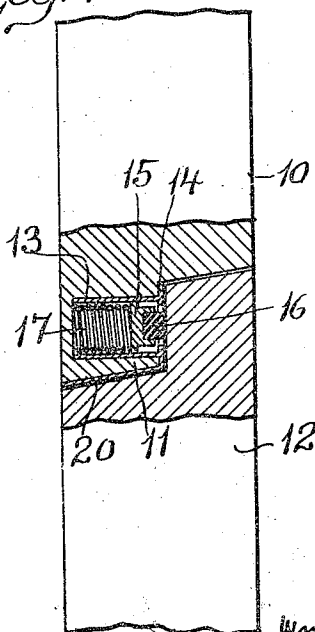


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

LEWIS A. BEDARD, OF BOSTON, MASSACHUSETTS.

BUFFER FOR AUTOMOBILE-DOORS.

1,022,651.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed July 12, 1911. Serial No. 638,092.

To all whom it may concern:

Be it known that I, LEWIS A. BEDARD, of West Roxbury, Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Buffers for Automobile-Doors, of which the following is a specification.

This invention relates to cushioning devices to prevent noise resulting from the closing of doors, and has particular reference to that type of such devices known as buffers.

A most common form of buffer now employed on automobile doors is a strip of rubber secured to the jamb by screws or nails in position to receive the impact of doors, two of such strips being often employed, one above the other. Such expedients are objectionable because of lack of durability and efficiency, the strips soon becoming hardened and loosened and worn out, and even when new not affording sufficient resilience to serve the purpose intended or prevent rattling of the door when closed and the car is traveling.

The object of the invention is to provide a durable and efficient buffer which is especially adapted to be used where the door jamb is very narrow and where it is customary to close the door with considerable force, as is customary with vehicle doors.

A further object is to provide such a device which, although confined to the very limited lateral space provided by the width of the door jamb of an automobile, will possess sufficient resilience to hold the door in such opposition to its lock or catch as to prevent rattling of the door even when the machine is traveling at a high speed.

With these and other objects in view, the invention consists in the construction and combination of parts substantially as hereinafter described and claimed.

Of the accompanying drawings, Figure 1 is a perspective view of a portion of an automobile body and door jamb having one of my improved buffers applied thereto. Fig. 2 represents a section on line 2—2 of Fig. 1. Fig. 3 represents a section on line 3—3 of Fig. 2. Fig. 4 is a view similar to Fig. 3, but showing also, partly in section, a portion of the door closed. Fig. 5 is a view similar to Fig. 2, illustrating a slight modification in the construction of the casing.

Similar reference characters indicate the same or similar parts in all of the views.

A portion of the body of a vehicle such as an automobile is shown at 10, and the jamb is indicated at 11, for the door 12 (Fig. 4). The face of the jamb 11 is narrow, frequently narrower than shown in the drawings, and is recessed or mortised to receive the casing 13 of the device. As shown by comparing Figs. 2 and 3, said casing is laterally narrow and vertically elongated. It is secured in the recess or mortise by screws or nails passing through a face plate 14 which may be integral with, or separate from and brazed or otherwise secured to the front end of the casing. The face plate is provided with a vertically elongated opening through which a sliding head 15 is normally projected by a spring, said head fitting the cross sectional area of the interior of the casing and having a cushion 16 of rubber or equivalent material removably connected to it as by screws or nails, the heads of the latter being countersunk below the face of the cushion.

Behind the head 15 is a spring having elliptical convolutions, the inner end of said spring bearing against the bottom of the recess in the jamb or against any suitable plate provided for the purpose. The elliptical conformation of the spring enables it to fit snugly within the laterally narrow casing and yet possess the necessary strength and resilience for the purpose intended, and to press the head outwardly without tendency to bind in the casing.

The head 15 has end shoulders 18 which slide in the ends of the casing and one end of the spring fits between said shoulders. The inner end of the casing has internal lugs or shoulders 19 between which the inner end of the spring fits and to which said spring may be connected if desired. Said shoulders centralize the spring and prevent it from making a noisy contact with the inner walls of the casing. The lugs or shoulders 19 may be integral with the casing as shown in Fig. 5, or separate therefrom and secured thereto as shown in Fig. 2.

At top and bottom, the face plate extends far enough beyond the casing to form ears through which attaching screws or nails may be passed.

It will be readily understood that, with a device located in a recess or mortise of a wooden jamb of such a narrow type, little or no wood can be left to form the outer wall of such recess. To, protect the thin

wall and prevent it from being split or knocked away in use, I provide the face plate with a lip or flange 20 having sufficient width and flexibility to enable it to be bent backward to fit the side face of the jamb whether that face be at a right angle to the front face or more or less beveled or inclined. And said lip or flange is provided with holes for the passage of screws to hold it firmly in position. In practice the side face of the jamb will be slightly mortised for the flange 20 so that the outer face of the latter will be flush with the adjoining wood surface. This flange, when polished or plated will add to, rather than detract from, the appearance of the door entrance. Being integral with the face plate and simply bent rearwardly from the latter, it leaves no rough edge to cause damage to the clothing of people passing in or out.

The buffer presents a vertically elongated cushion of such area that, although restricted as to width, no indenting or cracking of the door slamming against it can occur. Such vertical elongation results in less noise of contact than if a small round buffer possessing the necessary resistance were employed. And the vertical elongation of the spring, due to its elliptical form, results in an efficient resilience being obtained because of the greater length of the wire, than in a round coil limited to a diameter prescribed by the narrow jamb.

It will now be understood that I have pro-

vided a device which is especially adapted for the purpose described and illustrated, wherein the door jamb is not only narrow, but having also only a slight depth, or in other words, where the distance from the outer face of the jamb to the inner surface is slight. This last is a practically universal feature of construction in vehicles. By vertically elongating the spring I am able to get sufficient spring resistance within the lateral area provided by the width of the jamb. And by mounting one end of the spring in the space between the shoulders 18 which latter form guides in the casing 13 for the head 15, I am able to provide a spring of sufficient length for the purpose, although the depth of the buffer casing is restricted to a degree less than the depth of the said door jamb.

I claim:

A buffer for a door jamb, comprising a vertically elongated casing having a face plate provided with an opening and having a flexible flange to protect the wall of a recess containing the casing, a cushion-faced head mounted to slide in the casing, and an elliptical spring in the casing to project the head.

In testimony whereof I have affixed my signature, in presence of two witnesses.

LEWIS A. BEDARD.

Witnesses:

HARRY L. ALLEN,
PETER W. PEZZETTI.