Jan. 22, 1924. 1,481,292

T. J. KEHOE

DOOR GRIPPING DEVICE

Filed July 24, 1916

FIG. 1

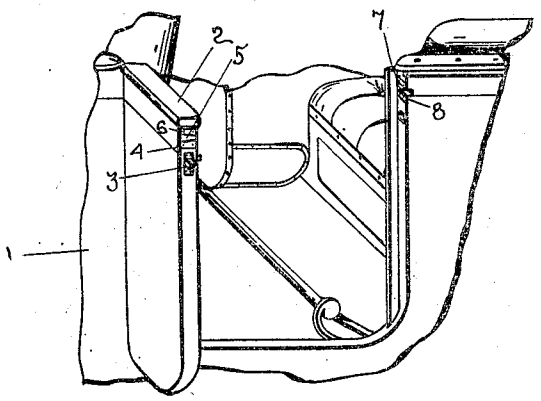


FIG. 2

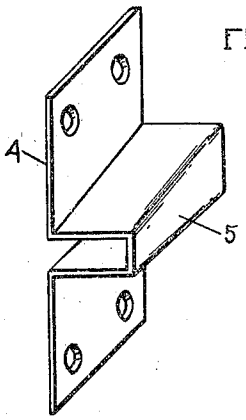


FIG. 3

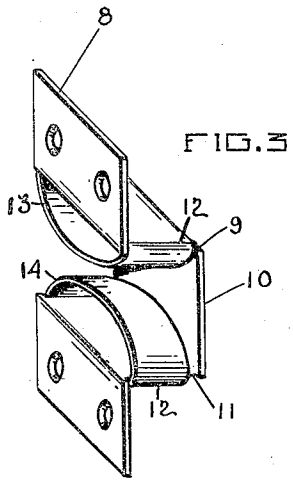
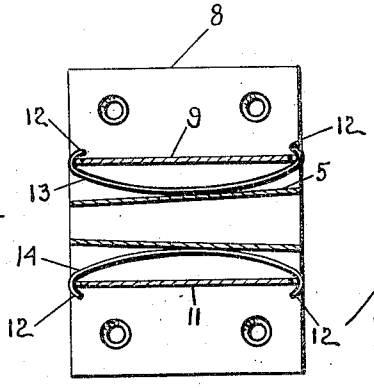


FIG. 4



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By

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UNITED STATES PATENT OFFICE.

THOMAS J. KEHOE, OF TOLEDO, OHIO, ASSIGNOR TO THE WILLYS-OVERLAND COMPANY, OF TOLEDO, OHIO, A CORPORATION OF OHIO.

DOOR-GRIPPING DEVICE.

Application filed July 24, 1916. Serial No. 110,362.

To all whom it may concern:

Be it known that I, THOMAS J. KEHOE, a citizen of the United States of America, residing at Toledo, Lucas County, Ohio, have invented new and useful Door-Gripping Devices, of which the following is a specification.

This invention relates to vibration eliminating or gripping devices.

The principal object of this invention is to provide a simple and efficient buffer and anti-rattler for automobile doors and one which can be conveniently produced at a low cost and which may be readily applied to the door and the door casing of an automobile.

Further objects, and objects relating to economies of manufacture and details of construction, will definitely appear from the detailed description to follow:

I accomplish the objects of my invention by the devices and means described in the following specification. My invention is clearly defined and pointed out in the appended claims.

A structure constituting a preferred embodiment of my invention is illustrated in the accompanying drawings, forming a part of this specification, in which:

Figure I is a perspective view with parts broken away, showing a motor vehicle body having a door equipped with the present invention.

Fig. II is a perspective view of the tongue or wedge-shaped portion of the device carried by the door.

Fig. III is a perspective view of the wedge or tongue receiving portion carried by the body of the vehicle, and

Fig. IV is a longitudinal section showing the wedge and receiving means therefor in co-acting position.

The vehicle body is provided with a door 2 having a latch 3 of any suitable construction. In addition to the latch, the present anti-vibration device is employed to firmly hold the door in order to prevent rattling of the same. This device preferably comprises a stamping 4 provided with a tongue or wedge-shaped portion 5, the stamping being secured to the door by suitable screws 6, as shown in Fig. I. The tongue or wedge receiving portion of the device, secured to the body of the vehicle by means of screws 7, comprises a U-shaped bracket 8, preferably a stamping having its side walls 9 and 11 connected by a transverse portion 10. Figs. III and IV. The side portions 9 and 11 are made shorter than the connecting portion 10, in order to form notches for the hook-shaped portions 12 of the oppositely positioned springs 13 and 14 mounted within the bracket 8. Upon the closing of the door, the tongue or wedge-shaped portion 5 of the member 4 will engage and compress the springs which are held at one end by the hook-shaped portions 12, the opposite ends being free to move longitudinally of the bracket when the wedge is moving to the position shown in Fig. IV. In this way, the wedge 5 is firmly gripped by the springs in a manner to positively prevent rattling or vibration of the door during the operation of the vehicle.

The several parts of the gripping device are strongly constructed of relatively light material, which is of sufficient strength to insure long service and at the same time affording a simple construction which may be economically manufactured and assembled.

What is claimed and it is desired to secure by Letters Patent is:

1. A buffer for doors comprising two independently supported parts, one of said parts being provided with a groove, the opposite walls of said groove being provided with notched edges, a pair of bowed springs disposed in said groove, and having inturned ends engaging in said notches, whereby said springs are supported by said member; the other of said members having a wedge-shaped lug operating in said groove, and adapted to be yieldingly engaged by said spring.

2. A buffer for doors, comprising a U-shaped member, the sides of which are shorter than the connecting base portion, bowed springs positioned within the U-shaped member and having their opposite ends bent around the ends of said sides, and securing means connected with said U-shaped member.

3. A buffer for doors, comprising a U-shaped member provided with outwardly extending flanges, the latter being of a greater length than the oppositely disposed sides of said U-shaped member and bowed springs positioned within the U-shaped member,

having their ends bent around the ends of said oppositely disposed sides.

4. A buffer for doors comprising a pair of co-operating members, each of which is U-shaped in cross section; and a pair of bow springs carried by one of said U-shaped members, the end portions of the springs being bent over the ends of the oppositely disposed sides of the said U-shaped member, whereby the springs are retained in position relative to the U-shaped member.

5. A door buffer comprising a channel shaped member adapted for attachment to a body upon which the door is hinged, and bowed springs positioned within the channel and adapted to receive a wedge shaped member carried by the door, the ends of the springs adjacent the point of entrance of the wedge shaped member within the channel being bent around the ends of the side walls of the channel with their opposite ends free to slide upon the channel.

6. In a door buffer, a grooved member, a tongue member adapted to engage therein, and means for retaining said tongue member in said grooved member, comprising a bowed spring having its ends hooked over the extremities of said grooved member.

7. In a door buffer, a grooved member adapted to receive a tongue member, the end portions of said grooved member being provided with notches, a pair of inwardly bowed springs arranged in the groove of said first member for retaining said tongue member, the ends of said springs being formed with hooks which engage in said notches.

In witness whereof I affix my signature.

THOMAS J. KEHOE.