H. C. MAISE.

ANTIRATTLER.

APPLICATION FILED FEB. 28, 1917.

1,348,232. Patented Aug. 3, 1920.

FIG. 1.

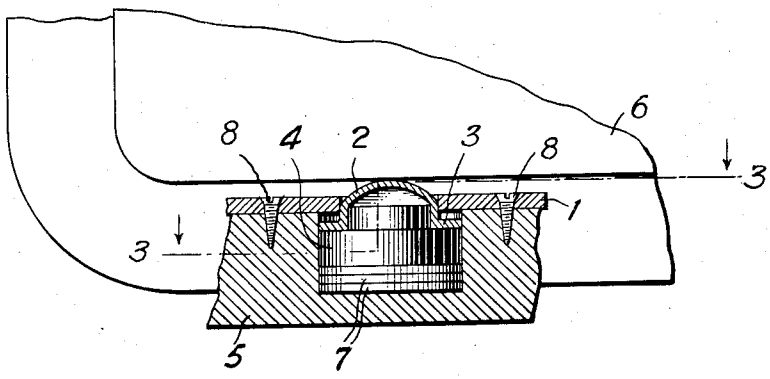


FIG. 2.

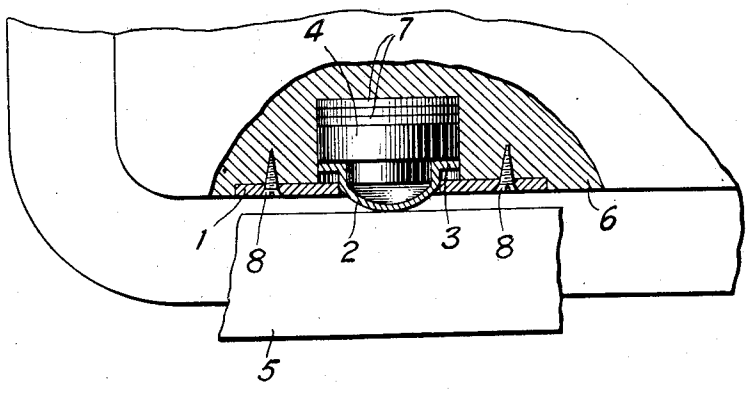
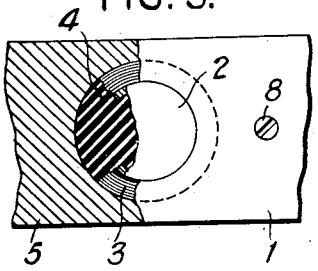


FIG. 3.



Harman C. Maise Inventor

By his Attorneys

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UNITED STATES PATENT OFFICE.

HERMAN C. MAISE, OF DETROIT, MICHIGAN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO EDWARD G. BUDD MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

ANTIRATTLER.

1,348,232. Specification of Letters Patent. Patented Aug. 3, 1920.

Application filed February 28, 1917. Serial No. 151,391.

To all whom it may concern:

Be it known that I, HERMAN C. MAISE, a citizen of the United States, a resident of the city of Detroit, county of Wayne, State of Michigan, have invented an Improvement in Antirattlers, of which the following is a specification.

One of the most difficult problems in automobile body construction, is to provide means for overcoming the tendency of the doors to rattle, due to movement of the parts of the body with respect to one another, and to the severe jolting to which the body is subjected in service. Such means, in order to be effective, must be quick to respond to the movement of the doors, and must be of such a nature that it will exercise its functions for relatively wide variations in position, in order that it may be effective, not only when the body is new, but after the relative positions of the parts have changed to some extent, due to wear.

Objects of my invention are to provide anti-rattling means of such character that they are simple, easy and cheap to construct, effectively protected from wear and from the action of water and dirt, of such a size and character that they may be easily and most effectively applied to a door. Other objects of my invention will appear in the following specification.

In the drawings Figure 1 is a sectional view of my improved anti-rattler attached to a door sill. Fig. 2 is a sectional view showing the anti-rattler attached to the lower door rail and Fig. 3 is a top view of my improved anti-rattler, partly broken away to show the location and arrangement of the parts.

While my improved anti-rattlers may be most effectively applied to act upon the edges of the door, their construction is such that they may be advantageously used in other positions if so desired; and such anti-rattlers may be used in connection with other anti-rattlers of similar or different design located so as to exert their action otherwise than in the plane of the door.

Referring to the drawings it will be seen that my improved anti-rattler is of the protected buffer type and comprises an apertured plate 1, which in the embodiment shown in Fig. 1 may be the scuff plate of the door and in the modification Fig. 2 may be an apertured plate of any suitable length. Projecting through the aperture in plate 1 is a plunger 2 which may be conveniently formed of pressed steel, and is provided with a sloping or slightly convex surface, in order to permit the door to ride up easily upon it. The lower end of the plunger 2 is provided with a laterally extending flange 3, which contacts with the inner side of the apertured plate 1, in order to limit the motion of the plunger in an outward direction.

A block or buffer of resilient material 4, such as rubber, is placed beneath the plunger and may, if desired, extend within it to any desired extent. The block of rubber is preferably closely fitted to the recess formed in the sill 5, or lower door rail 6 in order that its initial compression may be adjusted and that it may most effectively exercise its action upon the plunger.

It is sometimes desirable to subject the rubber to an initial compression and to adjust the projection of the plunger 2 beyond the apertured plate 1. For this purpose I provide adjusting plates 7 which may be varied, to produce the desired adjustment, in number and thickness.

It will be understood that the form of the plunger may be greatly varied and that any other suitable resilient material may be used instead of rubber.

In applying my improved anti-rattler to an automobile body, I first bore a hole in the door sill, door post or lower door rail. I then insert the proper number of adjusting plates 7, lay the rubber block and plunger upon the adjusting plates and then apply the apertured plate over the plunger, securing it in place by means of screws 8 or in any other suitable manner. The apertured plate, by reason of the fact that its aperture is smaller than the width of the rubber and the extreme width of the plunger, holds both of these members securely in position.

It will be understood that I have not shown and described the only form which my invention may take, but have described merely an operative form which I find to be useful, and that I do not intend to limit myself to the particular form shown and described, since it is evident that it may be greatly modified without departing from the spirit of my invention.

What I claim is:

In a device of the kind described, a door

member having a recess, a block of resilient material fitting said recess, a plate covering said recess, said plate having an aperture of smaller dimension than the recess, a hollow semi-spherically shaped sheet metal member having an annular edge flange fitting said recess, and resting on said resilient block, the semi-spherically shaped portion of said member protruding through the aperture in said plate, said plate serving to retain the flange of said semi-spherically shaped member and said resilient block within said recess.

In testimony whereof, I have signed my name to this specification this 14th day of February, 1917.

HERMAN C. MAISE.