June 12, 1928. 1,673,692

C. F. MARSTON

BUMPER

Filed July 7, 1927

Fig. 1.

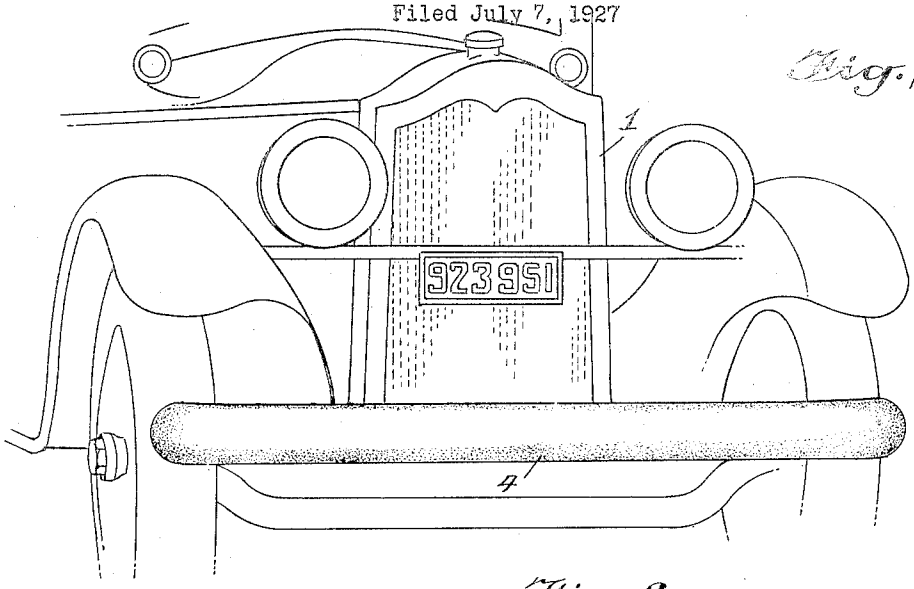


Fig. 2

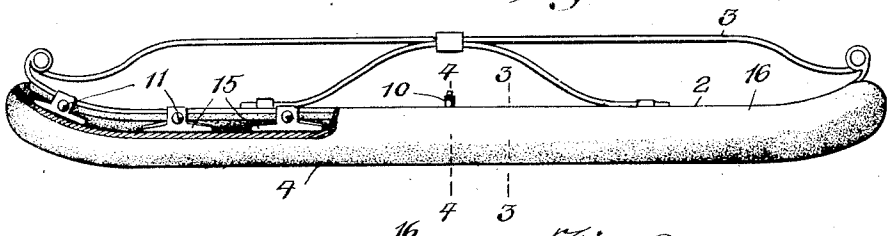


Fig. 8.

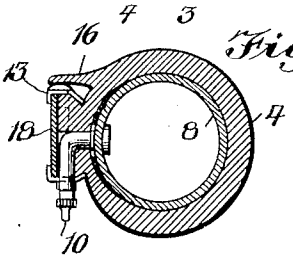


Fig. 5.

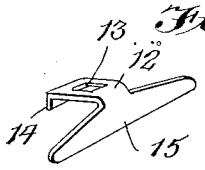


Fig. 3.

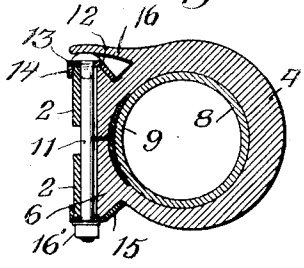


Fig. 6.

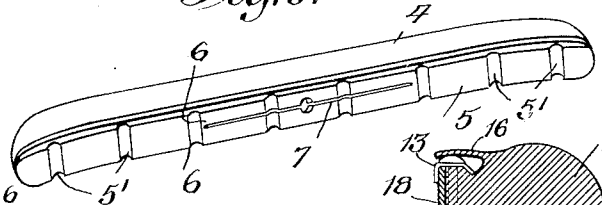


Fig. 4.

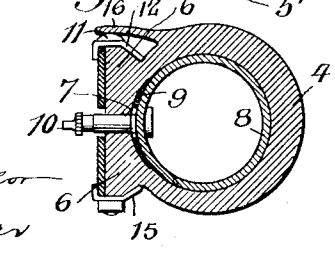
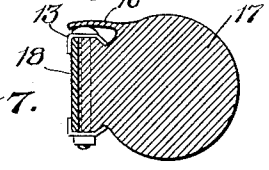


Fig. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

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BUMPER.

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This invention relates to improvements in bumpers and more particularly to a cushioning attachment for bumpers, the primary object of the invention being to provide a cushioning attachment which may be secured to the front bar of any ordinary bumper and which will not interfere in any way with the full resiliency and movement of the front bar or any other part of the bumper equipment.

A further object is to provide a cushioning attachment, which may be inflated or which may merely confine air in the compartment, or be cushioned in any way, which will fit flat against the front of the bumper to cushion shocks and prevent injury to persons hit by the bumper, and which can be attached and detached by any one of average intelligence, not requiring skilled labor.

A further object is to provide a bumper attachment of this character of improved form, having an improved arrangement of clamping brackets which insure a proper coupling engagement of the parts and securely hold the attachment to the face of the bumper bar or bars.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, which will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is a perspective view showing my improved bumper attachment in operative position;

Figure 2 is a plan view, partly broken away, showing the device in position on a standard type of bumper;

Figure 3 is an enlarged view in transverse section on the line 3—3 of Figure 2;

Figure 4 is an enlarged view in transverse section on the line 4—4 of Figure 2;

Figure 5 is a perspective view of one of the clamping brackets;

Figure 6 is a perspective view taken from the rear of my improved bumper attachment;

Figures 7 and 8 are views similar to Figures 3 and 4, illustrating modifications.

1 represents an automobile, and 2 and 3 the front and rear bars, respectively, of a bumper. I do not of course limit myself to the particular type of bumper illustrated as my invention is adaptable for any desired type of bumper, and the one shown is for purposes of illustration only.

My improved attachment comprises a shoe 4, which is of rubber or composition or any other combination of material such as is commonly employed in the manufacture of shoes for pneumatic tires. This shoe 4 is of the desired length and preferably slightly curved at its ends so as to conform to the general shape of the front bar 2 of a bumper.

The back face 5 of the shoe 4 is smooth except for bolt receiving recesses 5′, and relatively flat throughout its length so as to lie flush and smooth against the front face of the bumper. Around the shoe at its rear edge a bead 6 is formed integral with the shoe, as clearly illustrated.

This shoe may have a longitudinal slit 7 in its rear wall extending the desired length sufficient to permit an inner tube 8 to be inserted into the shoe, and said slot is covered by a strip 9 of canvas or other suitable material after the inner tube is inserted in place. This inner tube may have a valve inlet 10 for the connection of a pump to inflate the inner tube.

I do not wish to be limited to the employment of an inner tube as it is perfectly obvious that my invention is broad enough to cover a cushioning device as distinguished from a pneumatic device.

In the drawings I have shown the bumper as provided with a pair of front bars 2, one disposed above the other, which is the ordinary form of bumper in general use, but it is obvious of course that my invention is applicable for use in connection with a single bar or any number of bars.

The cushioning attachment is made with the said beads 6 extending longitudinally thereof at its rear edge, and to secure the device to the bars 2 of a bumper I employ any desired number of bolts 11 which are projected through clamping brackets 12 engaging the edges of the bars 2 and positioned over the beads 6.

One of these clamping brackets 12 is shown in perspective in Figure 5 from which it will be noted that the intermediate portions at least of the upper series of brackets have angular openings 13 to receive angular portions of the bolts 11, and each bracket has a depending lip or tongue

14 at its rear end to engage back of the bumper bar, and an extended flange 15 to engage the bead 6.

As above stated, these brackets are positioned on the bolts 11, engaging the upper and lower edges of the bumper bars and positioned over the upper and lower beads of the attachment, and said bolts may be secured by ordinary nuts 16′ which actually clamp the parts together.

The shoe 4 is provided at its upper portion with a rearwardly projecting integral flange 16, which extends over the clamps and bolts and the edge of the bar covering the attaching means so as to make a more attractive attachment and also protect the bars from the accumulation of dirt, water, etc. This flange 16 is flexible so that it may be lifted to allow free manipulation of the parts but will normally lie in the position shown in Figures 3, 4 and 8.

In Figure 7 I illustrate my improved cushioning member 17 as solid, and in Figure 8 I show my improved inner tube bumper attachment secured to a single bar with the air inlet valve 10 extending downwardly in front of the bumper bar.

When a bumper is equipped with my improved attachment the ordinary functions of the bumper are not interfered with in any way as the bars of the bumper are free to move and are in no way restricted or confined by the attachment. In addition, the attachment provides a cushion which absorbs the shocks, prevents damage to the automobile as well as to objects and persons with which it may come in contact.

While I have illustrated what I believe to be a preferred embodiment of my invention it is obvious that various changes and alterations might be made in the general form of the parts described without departing from my invention and hence I do not limit myself to the precise details set forth but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims:

I claim:

1. In combination with a pair of bumper bars, one located above the other, a cushioning attachment positioned against both of said bumper bars, clamping brackets engaging over the bumper bars and engaging the attachment, bolts projected through the clamping brackets, and extended flanges on the forward ends of said clamping brackets engaging the attachment.

2. An attachment of the character described, comprising a resilient cushioning member adapted to be positioned against the front face of a bumper bar, a plurality of separated clamps securing the attachment to the bumper bar whereby the bumper bar is permitted free flexing at all points, and a bendable flange on the cushioning device extending over the clamping members.

3. An attachment for bumpers, comprising a cushioning member having a rear face conforming in shape to the shape of a bumper bar to which it is to be attached, and also having bolt receiving recesses in its rear face, and a rearwardly projecting flexible flange at its upper portion.

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