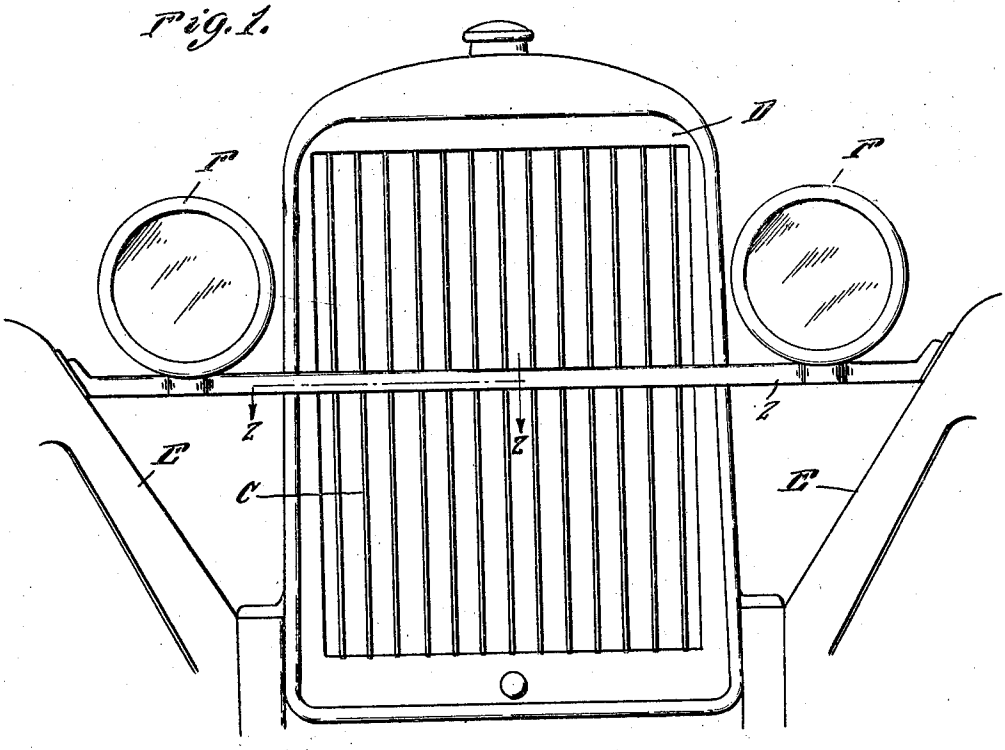
Dec. 16, 1930. J. G. GIAMPAOLI 1,785,482

AUTOMOBILE RADIATOR SHUTTER

Filed Oct. 27, 1928 2 Sheets-Sheet 1

Fig. 1.



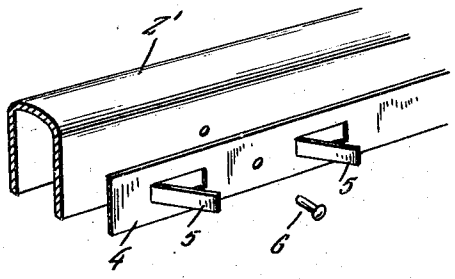
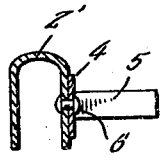


Fig. 6.

Fig. 7.



Inventor

Joseph Giampaoli

By Robert V. Rogers

Attorney

Dec. 16, 1930. J. G. GIAMPAOLI 1,785,482

AUTOMOBILE RADIATOR SHUTTER

Filed Oct. 27. 1928 2 Sheets-Sheet 2

Fig. 2.

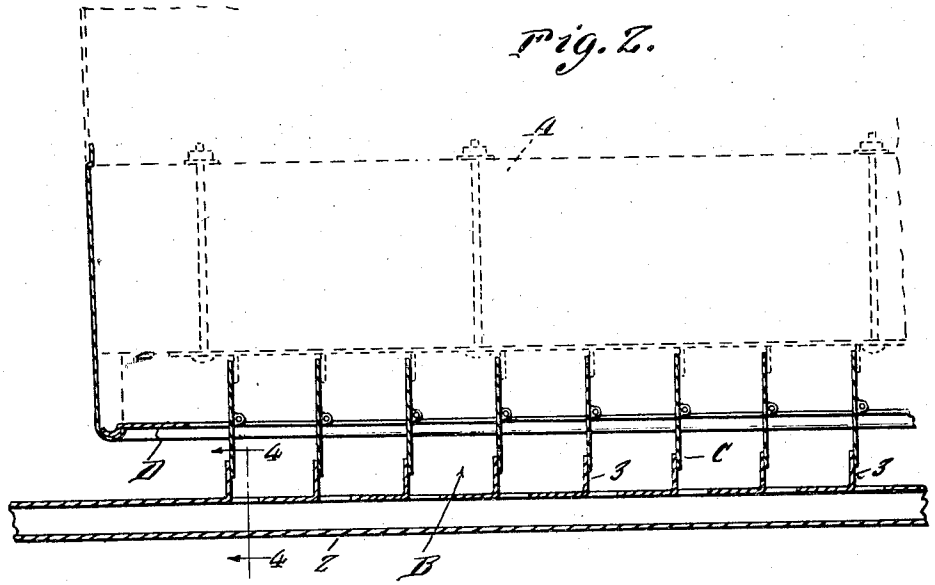


Fig. 3.

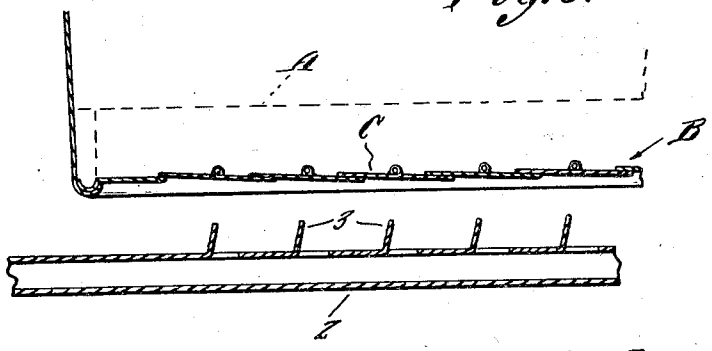


Fig. 4.

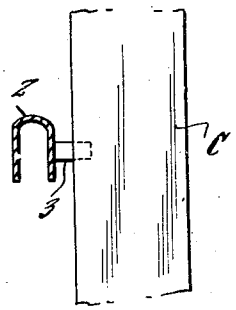
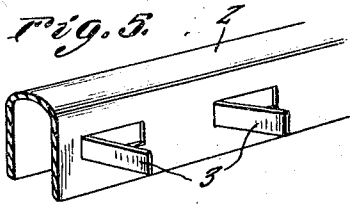


Fig. 5.



Inventor

Joseph Giampaoli

By Robert V. Rogers

Attorney

Patented Dec. 16, 1930 1,785,482

UNITED STATES PATENT OFFICE

JOSEPH GUY GIAMPAOLI, OF ELKRIDGE, MARYLAND

AUTOMOBILE RADIATOR SHUTTER

Application filed October 27, 1928. Serial No. 315,538.

The present invention pertains to improvements in shutters for automobile radiators broadly, and more specifically the same has reference to novel means for absorbing the usual vibration of the shutter panels during the operation of the motor and while the said panels are in open position.

There is practically no vibration of the panels in most makes of shutters while the same are in closed position, this being due to the fact that they generally abut each other longitudinally in this position; whereas, in open position the panels each depend for support solely upon their end connections to the shutter frame.

This invention aims to overcome this fault by providing novel tensioning means engageable with the panels of the shutter when said panels are in open position to absorb the vibration thereof during the operation of the motor.

The prime object of the invention is to provide a vibration absorber of the above character which because of its extreme simplicity can be manufactured at a cost within the economical demand of the public.

Another object of the device is to provide an anti-vibrating device of the nature mentioned wherein the parts can be readily adjusted to regulate the tension necessary between the device and the shutter panels.

After considering the following specification and claims other important objects and advantages of the invention will become apparent.

In the drawings:—

Fig. 1, represents a partial front elevation of an automobile radiator equipped with a shutter of conventional design.

Fig. 2, is a fragmentary sectional view of the shutter construction in open position and in association with the present invention, this view being taken substantially on line 2—2 of Fig. 1, and looking in the direction of the arrows.

Fig. 3, is a sectional view taken on substantially the same line in Fig. 1, showing the shutter panels in closed position and the spring fingers assuming their normal oblique disposition.

Fig. 4, discloses a detail sectional view taken substantialy on line 4—4 Fig. 2.

Fig. 5, represents a cross sectional and perspective view of the lamp brace bar provided with spring fingers for engagement with the shutter panels.

Fig. 6, represents a cross sectional and perspective view of a slightly modified form of the invention, the parts thereof being shown in separated position.

Fig. 7, is a cross sectional view of the modified form of the invention.

Referring to the drawings wherein like numerals designate like parts of the invention, Fig. 1 illustrates the radiator of a well known make of automobile equipped with a conventional shutter. In this view of the drawing, the invention is shown in the form of a brace bar for the headlights of the automobile.

Referring more particularly to the conventional structure shown, the radiator A is equipped with the conventional shutter structure generally referred to by B. This consists in construction of a plurality of vertically disposed panels C pivotally mounted at their respective ends within the frame D.

In carrying out the invention an elongated inverted U-shaped bar is provided and adapted to be secured at its ends to the usual fenders E—E of the automobile body. Adjacent the respective ends of the bar the usual headlights F—F may be supported. The bar which will be designated by numeral 2 is to be disposed horizontally intermediate the upper and lower ends of the panels C.

The inner depending portion of the bar is struck at spaced intervals to provide outwardly disposed spring fingers 3, which are disposed obliquely with respect to the inner side of the bar. These fingers are to correspond in number with the number of panels in the shutter construction.

Obviously, while the panels are in closed position, as shown in Fig. 3, the spring fingers 3 will project obliquely from the bar. However, when the shutter is opened, the panels will each engage its corresponding spring finger and in opening to their full extent will flex the fingers. Thus the fingers

will tensionally contact with the panels and will absorb the vibration thereof.

In Fig. 6, of the drawings a slightly modified form of the invention is adapted for association with the bar 2′, which is substantially the same construction as the bar 2. This form includes an elongated narrow plate 4 struck-out at spaced intervals to provide laterally disposed fingers 5. These fingers are sprung to an oblique position with respect to the plate. The plate is to be of a suitable spring material so that the fingers will possess a sufficient degree of resiliency.

The plate 4 and the bar 2′ are formed with openings to receive a suitable securing element 6 whereby the same may be secured together. The fingers 5 are adapted to engage the shutter panels in substantially the same manner as before described.

It will now be seen that the invention will serve to eliminate the usual disagreeable sound produced by the vibration of the open panels of an automobile radiator shutter. It is also to be understood that the device may be constructed of any material found suitable and that various changes can be made in the size and shape of the device without departing from the spirit of the invention and scope of the appended claims.

Furthermore, the elongated plate provided with the spring fingers may be positioned at the rear of the shutter and suitably secured to the radiator front, thus concealing the device from view and permitting its use in either a vertical or horizontal position to accommodate shutters having their panels disposed in either manner. Fig. 2, of the drawings, discloses in dotted lines the securing of this plate to the front side of the radiator in rear of the shutter structure.

Having described the invention, what I claim as new is:—

1. An anti-vibrating device for automobile radiator shutters comprising, in combination, a horizontally disposed brace bar for the headlights of the automobile, said bar being of inverted U-shape in cross section, and tensional fingers projecting from one side of the bar for tensional engagement with the usual panels of the shutter when the said panels are in open position.

2. An anti-vibrating device for automobile radiator shutters comprising, in combination, a horizontally disposed brace bar for the headlights of the automobile, said bar being provided with a plurality of obliquely disposed spring fingers adapted to be tensioned by disposing the usual panels of the shutter in open position and against the said fingers.

In testimony whereof he affixes his signature.

JOSEPH GUY GIAMPAOLI.