

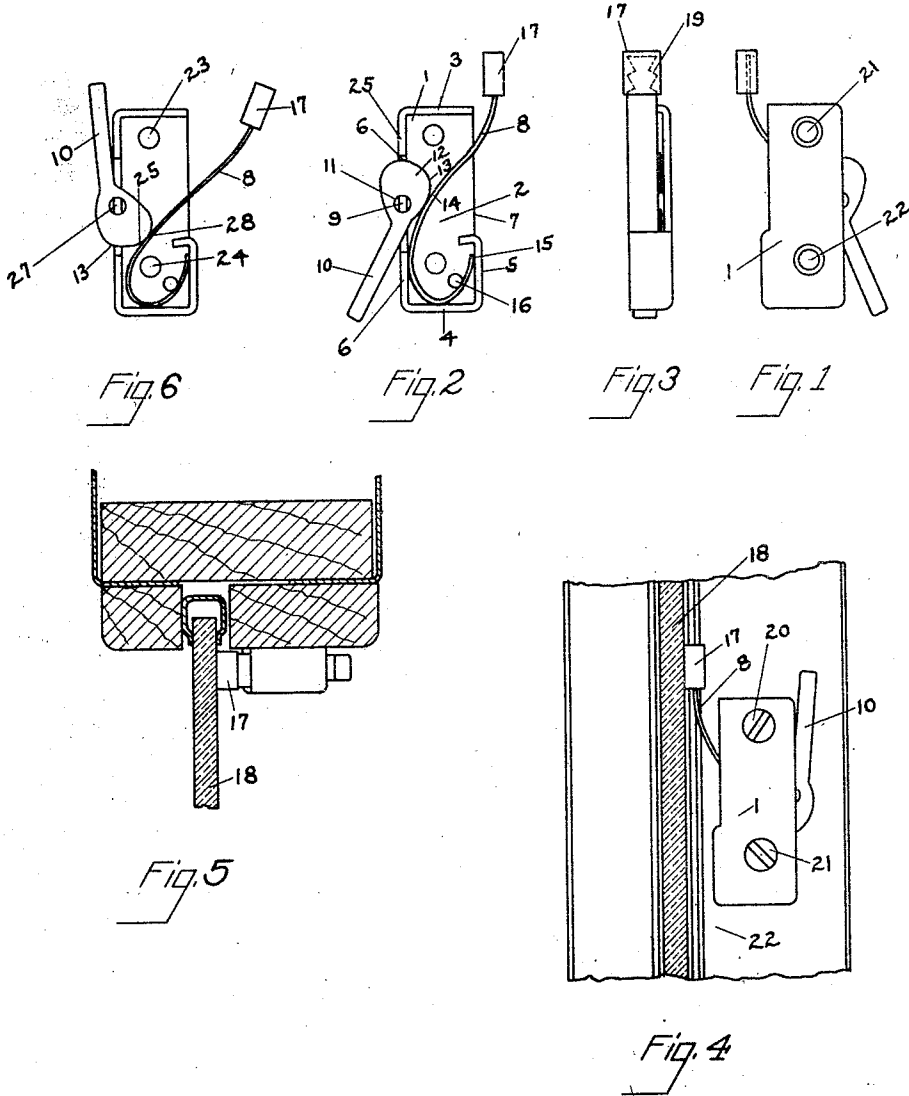
May 5, 1925.

1,536,929

E. E. RICHARDSON

ANTIRATTLING MECHANISM FOR WINDOWS

Filed April 26, 1922



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UNITED STATES PATENT OFFICE.

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ANTIRATTLING MECHANISM FOR WINDOWS.

Application filed April 26, 1922. Serial No. 556,595.

To all whom it may concern:

Be it known that I, EDWARD EDWARD RICHARDSON, a citizen of the United States, residing at Maumee, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Anti-Rattling Mechanisms for Windows, of which the following is a full, clear, concise, and exact description of my invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to anti-rattling mechanisms for windows, and particularly to such device as will prevent the unpleasant rattling of glass windows of enclosed automobiles, although my invention is not limited to such a use.

An object of my invention is to provide an anti-rattling mechanism adapted to be used to prevent the vibration of a glass window, such as employed in enclosed automobiles, by the application of pressure resiliently applied to the surface of such a window, near the edge thereof.

A further object of my invention is to provide such a mechanism as may be simple to operate, but which may be capable of applying a considerable pressure, resiliently, to the window pane, and which will be capable of being set in operative condition by a simple single operative movement by the operator and which when so set will remain in set position against the portion of contributing causes which in prior constructions have been effected to restore the mechanism to inoperative condition, such contributing causes being vibration caused by rough roads, etc.

Another object of my invention is to provide an inexpensively constructed mechanism of the kind described, made principally of sheet metal and of very few parts and which may be assembled or disassembled repeatedly and without any particular skill on the part of the assembler.

Another object of my invention is to provide a mechanism as described, which may be easily placed on the casing adjacent the window pane and which will remain in operative condition for long periods of time without attention, and which will moreover, give a presentable appearance, adding rather than detracting from the appearance of the car to which it is applied.

Other objects of my invention and the

invention itself will be better understood by reference to the drawings forming a part of this specification, and in which drawings:

Fig. 1 shows an elevational view of the mechanism of my invention in normal, unattached, inoperative condition.

Fig. 2 shows an elevational view of the mechanism of Fig. 1, the parts being in the same relative position, but the view being taken from the opposite or inner side of the mechanism.

Fig. 3 shows an end elevational view of the mechanism of the foregoing figures.

Fig. 4 shows a side elevational view of the mechanism of my invention attached to a window casing adjacent a window pane, the parts being in operative adjusted position to restrain vibrations of the said window pane.

Fig. 5 shows a top plan view of the mechanism as shown in Fig. 4.

Fig. 6 shows a view similar to Fig. 2, but with the operating lever of the mechanism thrown to full operative position.

Referring now to the various figures, in all of which like parts are designated by like reference characters, at 1 I show the enclosing casing for a mechanism embodying my invention, said casing having a front outer wall 2, end walls 3 and 4 and portions of end walls 5 and 6. The side of the casing opposite the wall 2 being left open as are also portions of the walls 5 and 6 for purposes later to be described.

The casing 1 is as shown formed of sheet metal, the side and end walls being turned up from the outer wall 2 and at right angles thereto, a portion of the wall 5 being omitted so as to provide an opening 7 through which the spring vibration subduing element 8 is adapted to pass, portions of the spring 8 occupying different positions through the opening 7 according to the different operative positions of the spring and due to the flexing of the spring 8 in the different adjusted positions thereof. The wall 2 has also a turned up portion 9, over which flange portion 9, a camming lever 10 is fitted, the lever 10 having an opening 11 adapted to encompass the said flange 9, the wall 6 has a portion omitted from either side of the flange 9 for the retaining of the lever 10 and the cam portion 12 thereof, said cam portion being suitably formed so as to have a camming edge 13, adapted to engage the

spring 9 at an intermediate portion 14. The spring 8 is placed within the frame 1 with its end 15 resting against the wall 5 and the spring 8 being bent around between the walls 5 and 6 and the cam surface 13 of the lever 10 and around a pin 16 secured at its end to the base 2 of the frame 1. The spring 8 thus has a normal tendency tending to move the soft rubber cap 17 placed on its end away from the pane of glass shown at 18. The end of the spring 8 is suitably made irregular in shape as indicated in Fig. 3 at 19, and the rubber cap 17 is made of such size that it must be stretched in order to fit over the spring 8.

When the anti-rattling device of my invention is placed in service, it is secured by means of wood screws 20 and 21, passing through openings 23 and 24 through the case 1, and into the casing 22 of a window frame having the window pane shown at 18. When the lever 10 is in inoperable position as shown at Fig. 2, the cap 17 rests but lightly, if at all against the window pane, but when the lever 10 is thrown to the position indicated in Figs. 4 and 6, the cap 17 is moved against the window pane 18 and exerts a considerable pressure thereagainst, the pressure being resiliently applied through the resilience of the material of the cap 17 and the spring 8.

The resiliency of the pressure contributes to the prevention of rattling at all times, and at the same time where a plurality of my improved devices are in use on different portions of the window pane simultaneously, the window pane will not be placed under such a severe unyielding stress as will cause the pane to break when vibrated sharply.

It will be noted also that approximately at the point 25 of the cam face 13, the said cam face surface 13 is disposed further from the center of rotation of the lever 10. The center of rotation being indicated in Fig. 6 by the numeral 27. Therefore, when the lever 10 is thrown to its completely operated position the point 25 on the cam face has just passed that position where it contacted with the spring 8 and another point 28 on the said cam face 13, less distant from the center of rotation 27 is in contact with the spring 8; in other words, the cam is rotated past the "dead center" operative position. This contributes towards the performance of the function of maintaining the lever of set operated position under the sustaining pressure of the operated spring 8.

Having thus described my invention in a specific embodiment, I am aware that numerous and extensive departures may be made from the embodiment herein illustrated and described, but without departing from the spirit of my invention.

What I claim as my invention is:

1. In a device of the class described, a

substantially open ended rectangular box shaped base member, opposite sides of said box member having openings therein, a flat leaf spring secured at one of its ends within the said base member near an end thereof, and having its other end projecting through one of the said side openings, a camming lever journaled in the said box member and having a handle portion projecting through the other said opening, means whereby said base member may be secured to the frame of a window with its open end in contact with my improved devices are in use on different the said frame and the end of the said leaf spring adjacent the window pane; said camming lever adapted to press the end of the said spring firmly against the window pane when the said handle is operated, and a pad of resilient material carried by the said spring end pressed against the window pane.

2. In a device of the class described, a base member, a spring strip having a coiled end removably secured in the said base member and the other end projecting from a side of said base member, a contact pad of resilient material on the end of the said spring strip, and a camming lever pivotally supported by the said base member and having a camming face adapted to engage a side of the said spring, said lever when rotated adapted to cam the said spring to deflect the same to cause the said contact member to exert a yielding pressure against a window pane.

3. In a device of the class described, a base member, a spring strip having one end secured in the said base member and the other end projecting from a side thereof, a contact pad of resilient material on the projecting end of the said spring strip, and a camming lever pivotally supported by the said base member and having a camming face adapted to engage a side of the said spring, said lever when rotated adapted to cam the said spring to deflect the same to cause the said contact member to exert a yielding pressure against a window pane, said camming face and the engaged spring portion being so disposed and shaped that the said lever may move the said camming face over the engaged spring side portion and below the plane of the pivotal connection to maintain the said spring firmly in deflected pressure applying position.

4. In a device of the class described, a base member, a spring strip secured in the said base member and projecting from a side thereof, a contact pad of resilient material on the end of the said spring strip, and a camming lever pivotally supported by the said base member and having a camming face adapted to engage a side of the said spring, said lever when rotated adapted to cam the said spring to deflect the same to cause the said contact member to exert a

yielding pressure against a window pane, said base member comprising an open ended metallic box having substantially opposite portions of its sides omitted, the said spring strip end projecting through the opening provided by the omission of the one side portion, said lever having a portion projecting through the opening provided by the omission of the other side box portion.

5. In a device of the class described, a substantially open ended box shaped base member having openings in its opposite side walls, a leaf spring strip having one end curved and extending against the side walls of said base member, and the opposite end projecting through the opening in one side of said base member, a pin extending through said base member to maintain the curved end of said spring within said base member, and a camming lever journaled to said base member comprising a handle portion projecting through the opening in the side wall of said base member opposite the wall through which the spring projects and a cam face adapted to engage said spring strip intermediate its ends, said lever when rotated in one direction being adapted to press the projecting end of said spring firmly against a window pane.

In witness whereof I have hereunto set my hand, this 8th day of April, 1922.

EDWARD EDWARD RICHARDSON.

Certificate of Correction.

It is hereby certified that in Letters Patent No. 1,536,929, granted May 5, 1925, upon the application of Edward Edward Richardson, of Maumee, Ohio, for an improvement in "Antirattling Mechanisms for Windows," an error appears in the printed specification requiring correction as follows: Page 2, line 78, strike out the words "my improved devices are in use on different"; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 7th day of July, A. D. 1925.

[SEAL.]

WM. A. KINNAN,
Acting Commissioner of Patents.