Sept. 4, 1928. 1,682,993

C. R. SHORT

HINGE

Filed Feb. 8, 1926

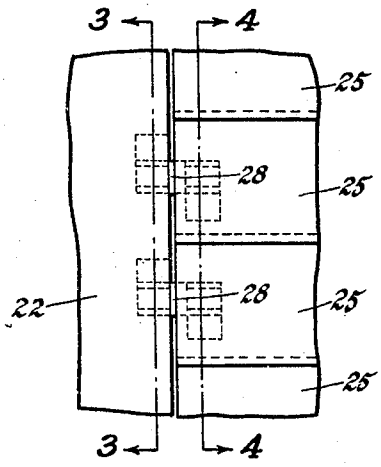

Fig. 1

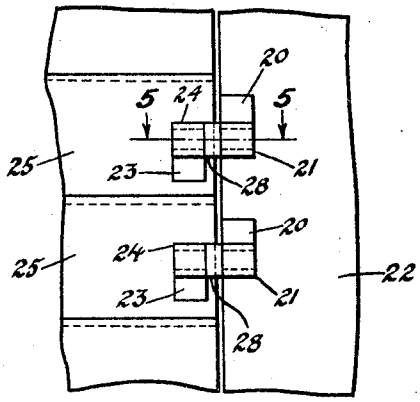

Fig. 2

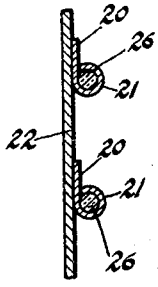

Fig. 3

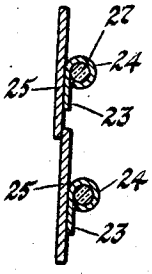

Fig. 4

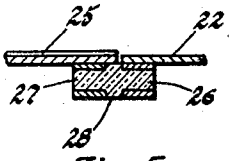

Fig. 5

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UNITED STATES PATENT OFFICE.

CHARLES R. SHORT, OF DAYTON, OHIO, ASSIGNOR TO GENERAL MOTORS RESEARCH CORPORATION, OF DETROIT, MICHIGAN, A CORPORATION OF DELAWARE.

HINGE.

Application filed February 8, 1926. Serial No. 86,828.

This invention relates to improvements in hinges and more particularly such hinges as are used in connection with motor vehicles.

One of the objects of the present invention is to provide a hinge that will not rattle or squeak.

Another object is to provide a hinge that will not corrode, thus, eliminating binding or sticking up of the hinge due to such corrosion.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings, wherein a preferred form of the present invention is clearly shown.

In the drawings:

Fig. 1 is a fragmentary view of a radiator shutter for motor vehicles, the greater portion of the hinges being shown in dotted lines;

Fig. 2 is a view similar to Fig. 1, but taken from the opposite side;

Fig. 3 is a fragmentary, sectional view taken along the line 3—3 of Fig. 1;

Fig. 4 is a view similar to Fig. 3, but taken along the line 4—4 of Fig. 1; and

Fig. 5 is a detail section taken along the line 5—5 of Fig. 2.

Referring to the drawings, the hinge is shown comprising a pair of hinge straps 20 and 23, each of which is provided with an eye portion 21 and 24, respectively.

The pivot which connects these two straps to form a hinge having a flexible pivot may be made of rubber or any other suitable material, flexible by torsion. This pivot is in the form of a pin or pintle and comprises shank or end portions 26 and 27 of equal transverse dimensions, and in intermediate portion 28 of greater transverse dimensions than the two end portions 26 and 27. The end portion 26 is shown extending into the eye portion 21 of strap 20, while the end portion 27 extends into the eye portion 24 of strap 23. Both end portions are non-rotatively anchored in their respective eye portions by cementing or otherwise.

In the present drawings the hinge is shown applied to a radiator shutter for motor vehicles. Hinge strap 20 is secured to the shutter frame 22 which is stationary, while the strap 23 is secured to the shutter blade 25.

When the blades 25 are operated by any suitable apparatus, not shown, they will rotate about the axis of their hinge pins. The pin being of a flexible character and being interposed between a stationary frame 22 and the said rotating shutters 25 to which they are securely fastened, said pivot pins will be twisted. This twisting of the pivot pins distorts the portion 28. When the shutters are again returned to their former positions, which normally is open, the portion 28 of the pivot pin will also return to its normal, untwisted condition.

These rubber pins will practically eliminate rattles and squeaks. Corrosion will not take place where rubber is used and the twisting of the ruber will tend to keep the same alive and thus retard deterioation. Any suitable flexible material may be used to construct the pivot members.

While the form of embodiment of the invention as herein disclosed, constitutes a preferred form, it is to be understood that other forms might be adopted, all coming within the scope of the claims which follow.

What is claimed is as follows:

1. A hinge, comprising in combination, a pair of hinge straps having eye portions in axial alignment and spaced relation; a rubber pivot member flexible by torque, said pivot having reduced ends oppositely disposed and anchored in the eye portions of the hinge straps, the portion of the said pivot member between said hinge straps being of greater transverse dimensions than the two ends anchored to said straps.

2. A hinge comprising two members united by a pintle like mass of elastic deformable material which is non-rotatively connected to the respective members, whereby relative rotative movement is effected solely through the torsional yield of the pintle like member.

In testimony whereof I affix my signature.

CHARLES R. SHORT.