Sept. 10, 1929. E. G. MATHAUER 1,727,723

WINDOW FASTENER

Filed April 11, 1927 2 Sheets-Sheet 1

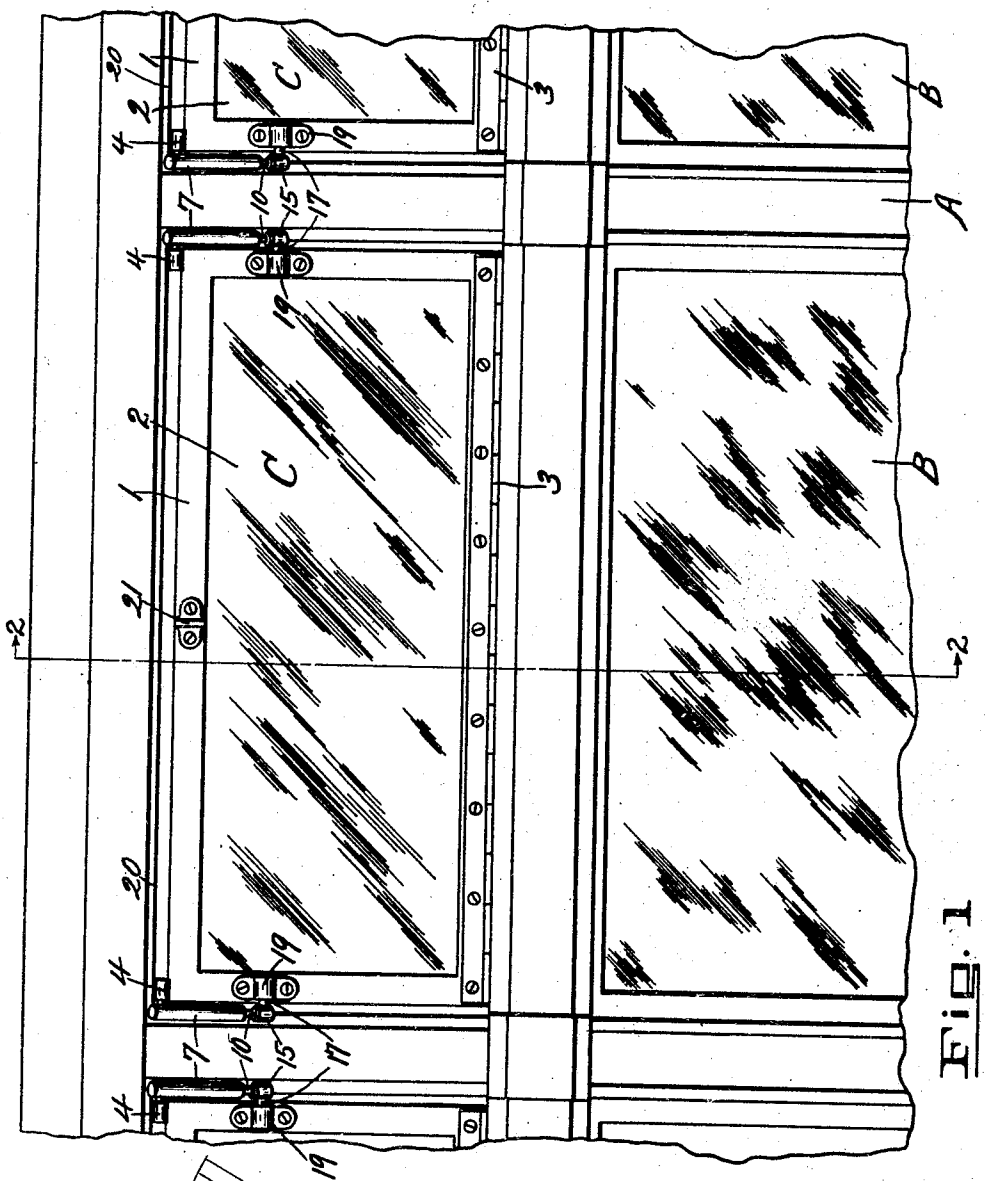


Fig. 1

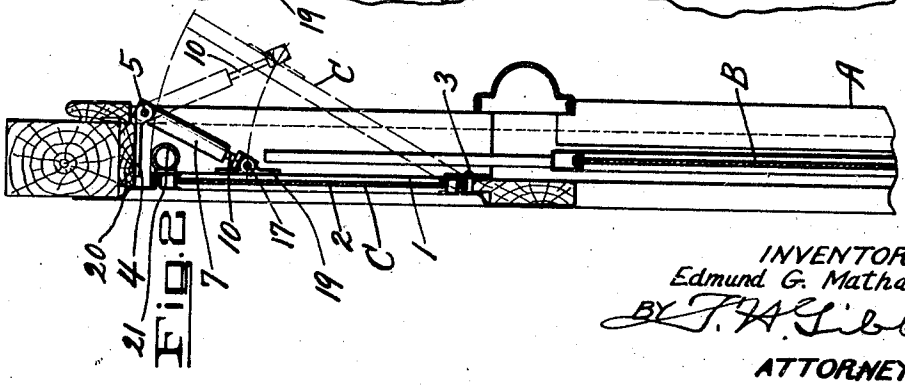


Fig. 2

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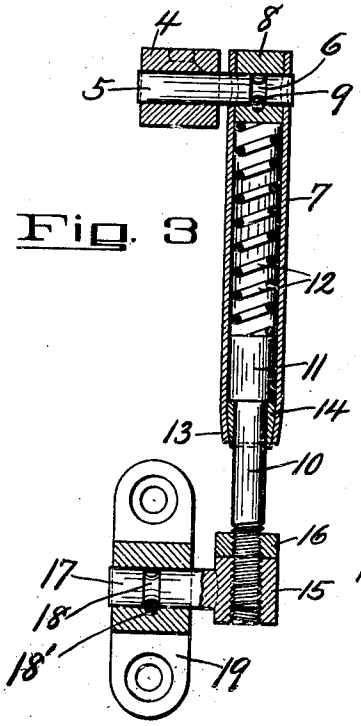


Fig. 3

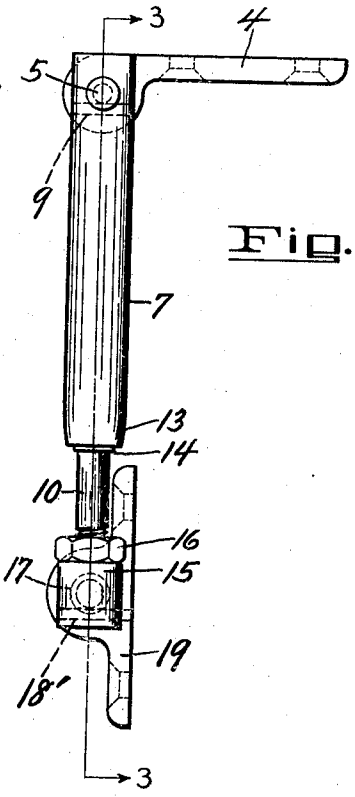


Fig. 4

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UNITED STATES PATENT OFFICE.

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WINDOW FASTENER.

Application filed April 11, 1927. Serial No. 182,924.

Reference is had to the accompanying drawings which illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof within the scope of the claims will occur to persons skilled in the art.

In said drawings:

Fig. 1 is a fragmentary view of a portion of a bus body, showing the invention applied thereto;

Fig. 2 is a sectional view on the line 2—2, Fig. 1;

Fig. 3 is a sectional view on the line 3—3, Fig. 4, and

Fig. 4 is a side elevation of the device.

The primary object of this invention is to provide a fastener for windows or the like which will eliminate to a great extent, if not entirely, excessive vibration, and the rattle incident thereto, of such window.

Another object of this invention is to provide a window fastener which will retain the window in either open or closed position, as desired, in such manner that vibration thereof is reduced to a minimum.

A still further object is to provide a window fastener which will function both as a window opener and a window closer, as the case may be.

Other objects and advantages of the invention will be apparent from the following description, taken in conjunction with the accompanying drawings, in which the reference character A designates a portion of a passenger vehicle, such, for example, as a motor bus or the like, which is provided with the usual windows B. It is customary in buses and other passenger vehicles in use at the present time to provide other windows for the benefit of passengers who are required to stand, and also for ventilating purposes, and the drawings disclose a vehicle of this character in which are shown relatively small windows C each comprising a frame 1 and a glass 2, said windows being positioned in openings defined by the bus body. The windows C, as clearly shown in Fig. 1, are hingedly connected at the lower end thereof, as shown at 3, to the bus body in order that they may swing downwardly for ventilating purposes. So far, the construction described is usual in passenger vehicles. The present invention relates to a means for fastening the windows C, and to that end there is shown more clearly in Figures 3 and 4 the device of the present invention.

As shown, there is provided a bracket 4 having near one end thereof an opening in which is received a pivot rod 5 which may be fixedly secured within said bracket 4, if desired, or which may have a revoluble fit in said opening. One end of said pivot rod 5 is extended beyond the bracket 4 and is provided with an annular groove or recess 6.

Pivotally connected to the extended end of the pivot rod 5 is a tubular housing 7 which is plugged at one end, as shown at 8, the pivot rod 5 passing through said plug 8, as shown. A pin 9 is mounted in the plug 8 and housing 7 at right angles to the pivot rod 5 and engages the recess 6 thereby retaining the housing 7 on pivot 5 and allowing the same to oscillate thereon. The housing 7 normally depends from the pivot rod 5 and is provided with a plunger 10 having an enlarged rear end 11, said plunger working within the housing 7 and against the tension of a compression spring 12, one end of which bears against the plug 8 and the opposite end of which has a bearing against the rear end of the enlarged portion 11 of the plunger 10.

The free end of the housing 7 is slightly reduced as shown at 13 and within this reduced end is a bushing 14, the rear end of which serves as a limiting stop for the enlarged portion 11 of the plunger 10. The free end of the plunger 10 is threaded into an interiorly threaded sleeve 15 formed with a pivot rod 17 which extends into a bracket 19 secured to the window frame 1, and a nut 16 is provided for retaining the plunger 10 in any desired position whereby the plunger 10 may be adjusted to compensate for loss of tension in the spring 12.

In use, the bracket 4 is secured to the window jamb 20 as shown in Fig. 2, and, as before mentioned, the bracket 19 is connected

to the window frame 1. Fig. 2 discloses, in full lines, the window C in its closed position with the window fastener associated therewith, and from an inspection of this figure, it will be obvious to those skilled in the art that the spring 12 is under extreme compression, thereby retaining the window C in closed position with the danger of vibration reduced to a minimum due to the constant pressure exerted on the window through the medium of the spring and the bracket 19. When it is desired to open this window for ventilating purposes all that is necessary is to pull the window from its closed position to the open position shown in dotted lines in Fig. 2, hand grasps 21 being provided for this purpose. During the operation of opening the window, it will be apparent that the latter will swing on its hinge 3 in an arc and when the pivot rod 17 has passed the center indicated by the pivot 5, the plunger 10 will be extended with the spring 12 exerting its compression through the bracket 19 onto the window C, thus reducing vibration of the window C in its open position, to a minimum.

What is claimed is:

1. A window fastener comprising a bracket secured to a window jamb, a pivot pin carried by the bracket, a housing supported by the pin, a spring in said housing, a plunger working in the housing and normally urged to extended position by said spring, a bracket secured to the window frame, a pin pivotally mounted in said second named bracket, a sleeve carried by the pin and adjustably receiving the end of the plunger, and a lock nut mounted on the plunger end and engaging the sleeve to retain the plunger in desired adjusted position against the tension of the spring.

2. A window fastener comprising a bracket secured to a window jamb, a housing pivotally connected to said bracket, a spring in said housing, a plunger working in the housing and urged to extended position by said spring, said plunger having a threaded end, a bracket secured to a window frame, a sleeve member pivotally secured to the second named bracket and in which the threaded end of the plunger is received, the plunger being rotatable in the sleeve member to adjust the position thereof in the housing against the tension of the spring, and means for securing the plunger in adjusted position.

In witness whereof I have hereunto set my hand.

EDMUND G. MATHAUER