W. H. HEULINGS, Jr.

WINDOW FRAME.

APPLICATION FILED JULY 12, 1915.

1,178,804.

Patented Apr. 11, 1916.

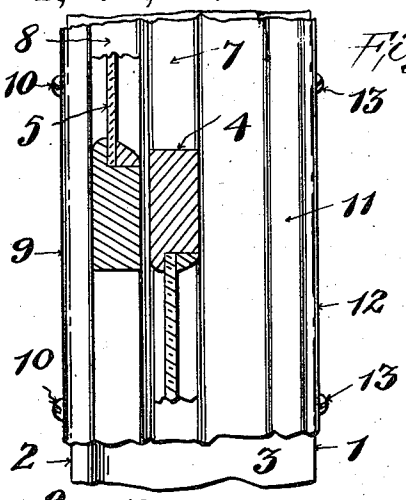


Fig. 2.

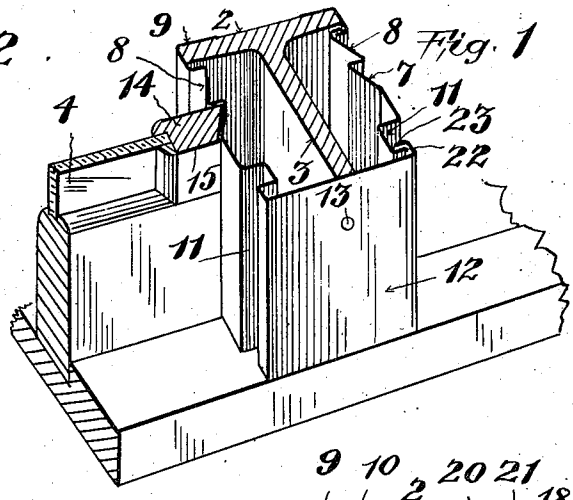


Fig. 1.

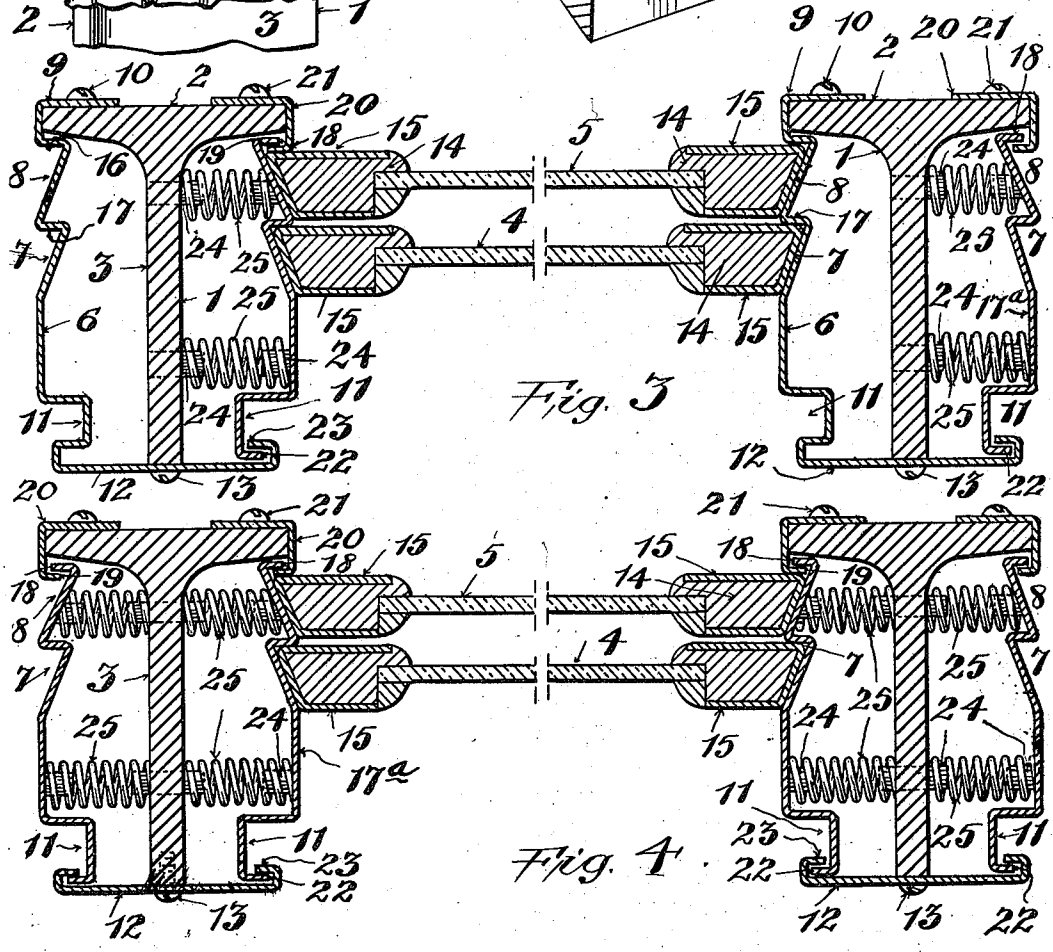


Fig. 3.

Fig. 4.

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WINDOW-FRAME.

1,178,804. Specification of Letters Patent. Patented Apr. 11, 1916.

Application filed July 12, 1915. Serial No. 39,299.

To all whom it may concern:

Be it known that I, WILLIAM H. HEULINGS, Jr., a citizen of the United States of America, and resident of the city and county of Philadelphia and State of Pennsylvania, and whose post-office address is care of The J. G. Brill Company, Sixty-second street and Woodland avenue, in said city, have invented certain new and useful Improvements in Window-Frames, of which the following is a specification.

The object of my invention is to provide a window frame for passenger cars, constructed in such a manner so that the sash can be readily removed, when desired, and which will hold the sash firmly in position and prevent it from rattling and will also hold it in such a manner so that an airtight joint is formed between the sash and frame.

My invention is particularly adapted for use in connection with railway passenger cars as above mentioned, but it is obvious that it can be otherwise used where it is desirable to quickly remove the sash or to prevent the sash from rattling in the frame.

These and other objects are accomplished by my invention, a more particular description of which will appear below.

For a more particular description of my invention, reference is to be had to the accompanying drawings, forming part hereof, in which,

Figure 1 is a perspective view of a portion of the frame and sash; Fig. 2 is a side elevation of a portion of the frame and sash; Fig. 3 is a transverse sectional view of the frame and sashes, the center portion of the sashes being cut away; and Fig. 4 is a like transverse sectional view of a modified form of frame.

Throughout the various views of the drawings, similar reference characters designate similar parts.

Referring to the drawings, 1 indicates the vertical posts of a passenger car, said posts separating one window opening from another and having an outer web 2 and inwardly extending web 3, each post being T-shaped in cross section.

The lower sash of the window is indicated at 4 and 5 is the upper sash.

The frame of each window is formed of sheet metal or like material, one side of the same being rigidly secured to the post 1 and the other side being so secured and arranged to yield to allow an insertion or withdrawal of the sash and to hold the sash firmly in position. The rigid portion consists of a plate 6 having longitudinal grooves 7 and 8 therein forming ways for the upper and lower sash. This plate 6 has a flange 9 at its outer end resting on the outer side of the web 2, of the post 1, and secured thereto by screws 10 or other like fastening means. The inner end of this plate is grooved at 11 to form a guideway for a curtain rail and is also bent to form a face 12 which extends across the inner end of the web 3, to which it is secured by screws 13 or other like fastening means, the face 12 forming the finish of the division strip between the window openings. The ends 14 of the sashes 4 and 5 are beveled, as shown, and are preferably sheathed with a metal strip 15. The grooves 7 and 8 are beveled to correspond with the beveled edges of the sash. Shoulders 16 and 17 are thus formed on the frame and the inclined portion of the sash is such that the sash bears against these shoulders, making a tight joint at the longitudinal edge of the sash. The frame at the opposite side of the window opening is yieldingly arranged so as to allow for an insertion or removal of the sash.

A plate 17^a is formed with grooves 7 and 8 and curtain groove 11. The outer end of the plate 17^a is flanged at 18, which flange engages a flange 19 formed on a plate 20 secured on the web 2 of the post 1 by screws 21 or like fastening means. The inner end of the plate 17^a is flanged at 22, this flange cooperating with the flange 23 formed on one end of the plate 12. Extending from the side of the web 3 of the post 1 are pins 24 and extending from the inner side of the plate 17^a are like pins 24 and surrounding these pins and extending between the side of the web 3 and the plate 17^a are springs 25, said springs tending to cause the plate to adapt itself to the sashes, forming a weather tight joint between the sashes and frame.

In Figs. 1 to 3 I have shown each frame provided with one yielding side and one rigid side. In Fig. 4 I have shown each frame provided with two yielding sides, each of said sides being identical.

By the herein described construction, I not only provide for the ready and quick removal of the sashes, but I also provide a construction which occupies but little space, consequently the window openings can be

of comparatively small size. The frame is also automatically adjustable to give a proper pressure against the edges of the sashes. The construction is substantial and not likely to get out of order. Additionally it extends the range of ornamentation or trim of the posts, reduces the cost of manufacture of the parts and considerably simplifies the process of assemblage and dismemberment.

From the foregoing, it is obvious that my invention is not restricted to the embodiment herein shown and described but is broad enough to cover all structures coming within the scope of the annexed claims.

What I claim is:

1. A structure of the class described comprising a post, plates secured to the inner and outer ends of the post and having flanges extending inwardly toward the side of the post, a grooved plate having flanges extending outwardly and overlapping and engaging the flanges on the plates secured to the post and springs between the plate and the sides of the post supporting said plate against the edges of the sash.

2. A structure of the class described comprising a post, a flanged plate secured to the outer end of the post at one side of the same and extending inwardly toward the side of the post, a grooved plate on the opposite side of the post having a flange on its outer end secured to the outer end of the post, an integrally formed plate on its other end secured to the inner end of the post, said plate having a flange on its free end, a grooved plate having flanged edges, one of said edges engaging and overlapping the flange on the plate which is secured to the inner end of the post and the other of said flanges engaging the flanged plate secured to the outer end of the post and springs extending between the side of the post and said last-mentioned grooved plate.

Signed at the city and county of Philadelphia, and State of Pennsylvania, this 6th day of July, 1915.

WILLIAM H. HEULINGS, JR