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W. S. HAMM

2,015,848

CURTAIN FIXTURE

Filed July 28, 1933

Fig. 1.

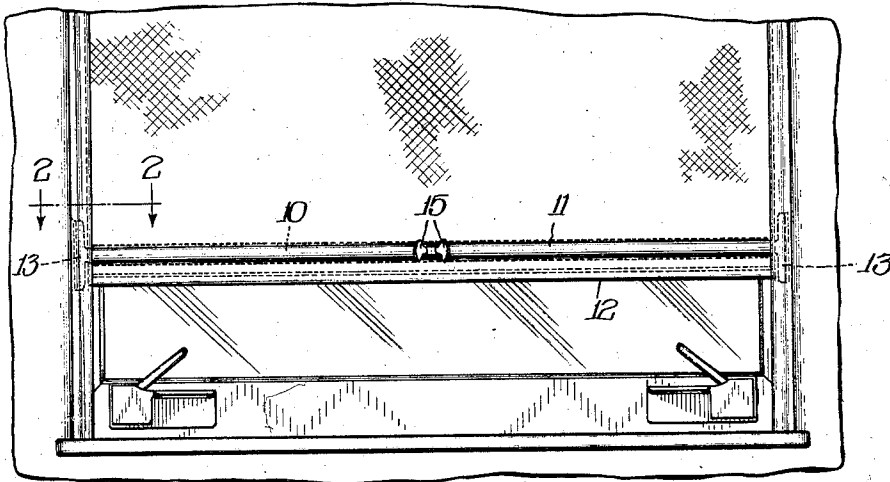


Fig. 2.

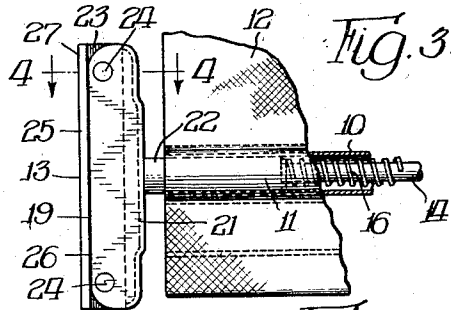
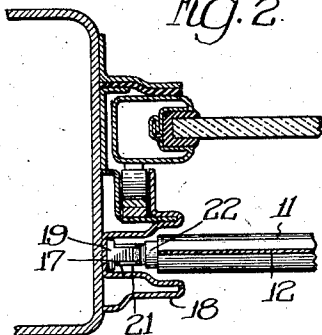


Fig. 3.

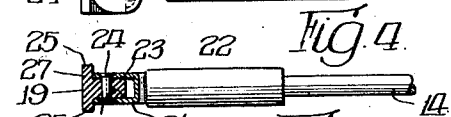


Fig. 4.

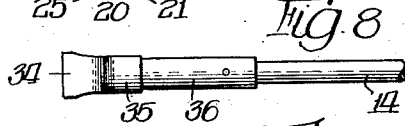


Fig. 5.

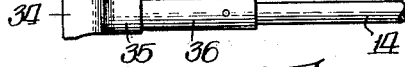


Fig. 6.

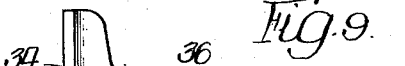


Fig. 7.



Fig. 8.



Fig. 9.

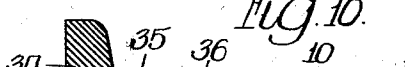


Fig. 10.



Inventor:
William S. Hamm,
By *Rumsey, Greiner & Warden*

UNITED STATES PATENT OFFICE

2,015,848

CURTAIN FIXTURE

William S. Hamm, Elkhart, Ind., assignor to The
Adlake Company, Chicago, Ill., a corporation
of Illinois

Application July 28, 1933, Serial No. 682,562

3 Claims. (Cl. 156—26)

This invention has to do with curtain fixtures of the type ordinarily used in the windows of railway cars and buses, which type includes a tube for insertion in the hem of a spring-raised curtain and heads at the ends of the tube for engagement within grooved guides at the sides of the window opening.

The object of the invention is to provide an improved curtain fixture head which can be used advantageously with aluminum guides without scuffing up the metal of the guides, will hold the curtain firmly against slippage, will not allow the curtain to become canted with respect to the window, is absolutely noiseless, is light in weight, and is very inexpensive to manufacture.

Other more specific objects and advantages of the invention will be apparent to those skilled in the art upon a further understanding of the construction, arrangement and operation of the improved head structure.

Three different embodiments of the invention are presented herein for the purpose of exemplification, but it will of course be appreciated that the invention is susceptible of being embodied in other structurally modified forms coming equally within the scope of the appended claims.

In the accompanying drawing:

Fig. 1 is an inside view of the lower portion of a car window equipped with the improved curtain fixture;

Fig. 2 is a horizontal section through one side of the window, taken on the line 2—2 of Fig. 1, showing one end of the curtain fixture;

Fig. 3 is a fragmentary view of one corner of the curtain, showing the adjacent curtain fixture head removed from the groove in the guide;

Fig. 4 is a horizontal section, taken on the line 4—4 of Fig. 3;

Figs. 5, 6, and 7 are top, side and vertically sectioned views of a structurally modified form of the head; and

Figs. 8, 9, and 10 are corresponding views of another structurally modified form of the head.

The embodiment of the invention which is illustrated in Figs. 1—4 inclusive will first be described. As will be observed in those views, the curtain fixture includes a metal tube 10 of small circular cross section which is positioned in a hem 11 in the lower edge of a spring-raised curtain 12. Heads 13 are mounted in the ends of the tube, and rods 14 extend from the heads through the tube to pinch handles 15 which project from a slot in one side of the tube at about the center of the latter. Springs 16 are compressed in the tube between suitably located abut-

ments associated with the heads and tube for forcing the heads outwardly away from the ends of the tube into engagement with the bottoms of grooves 17 in curtain guides 18 at the sides of the window opening. When the pinch handles 15 are pressed together, the springs 16 will yield and the curtain 12 can be moved up and down in the guides 18, but when the handles 15 are released, the springs will press the heads firmly against the guides, and the resulting friction will prevent the curtain from moving.

The heads 13 are of T-shaped formation and are characterized by vertically extending end portions and horizontally extending stem portions. The heads differ from those heretofore employed in that they are entirely free from any movable parts, such as rollers, cams, springs and hinges. On the contrary, they are saliently characterized by the presence of rubber friction shoes 19. The shoes 19 are vertically elongated strips which are mounted in grooves 20 in the outer edges of sheet metal holders 21. The holders 21 are of rigid formation and are provided with cylindrical portions 22 which telescope slidably within the ends of the tube and are attached inside of the latter to the ends of the previously described rods 14. The rubber shoes 19 are of T-shaped cross section and are disposed with their center ribs 23 in the grooves 20, where they are held firmly in position by transfixing rivets 24. The laterally extending flanges 25 of the shoes abut against the outer edges 26 of the holders 21 and project laterally beyond the side faces of the holders, whereby to maintain the latter centered in the grooves 17 in spaced relation to the sides thereof. The flat outer edges 27 of the shoes 19 are preferably straight and extend the full height of the heads. As best shown in Fig. 3, the upper and lower ends of the metal holders 21 recede from the corresponding ends of the flat outer edges 27 of the rubber shoes 19, leaving V-shaped openings therebetween and rendering the tips only of the heads 13 resiliently yieldable with respect to the remaining portions.

In the modified embodiment which is shown in Figs. 5—7 inclusive, the head 28, instead of being composed of a sheet metal holder and a separate rubber shoe, as in the first described embodiment, is made almost entirely of rubber, in T-shaped form. The vertically extending portion 29 of the head is straight and is widened out along both sides of its outer edge, as shown at 30, and the horizontally extending portion 31 is cylindrical in form and is grooved intermediate its ends to accommodate a sheet metal ferrule

32, which is of slightly less diameter than the portion 31. This difference in diameter prevents direct metal-to-metal contact between the head and the tube 10 in which it slides. The ferrule 5 32 is preferably molded into the portion 31 and forms an anchorage for a small rivet 33 which passes through the ferrule into the end of the rod 14.

In the form of the invention which is shown 10 in Figs. 8-10 inclusive, the portion of the head 34 which projects from the tube 10 is again of solid one-piece rubber formation, but the stem portion 35 of the head is comparatively short and is molded into the outer end of an adapter 15 sleeve 36, which sleeve telescopes over and is riveted to the adjacent end of the rod 14.

The improved curtain fixture head will give excellent results when the guides 18 are made of aluminum, notwithstanding the fact that ordinary heads give a great deal of trouble when 20 used against aluminum. It will of course be understood however that the improved head is also intended for use with all other kinds of guides. The improved head gives a good grip, will slide 25 freely without any binding when the spring pressure is released, is noiseless, and, in the forms shown in Figs. 5-10 inclusive, the slight flexibility at the base of the neck portion seems to augment the gripping action when any force is applied 30 tending to cant the fixture as a whole.

I claim:

1. In a curtain fixture, a tube for insertion in a hem in the lower edge of a curtain, and a T-shaped head of substantially rigid form positioned 35 with its stem slidably mounted in the end of the tube, said head consisting of a vertically elon-

gated sheet metal holder of outwardly opening U-shaped cross section, and a straight faced rubber strip in the holder provided with laterally extending shoulders for abutment with the outer edges of the side walls of the holder, said outer 5 edges of the side walls being straight throughout the major portions of their lengths and being set back adjacent their ends, and said strip extending the full height of the holder with the end portions of the shoulders spaced from the set back 10 outer edges of the side walls.

2. In a curtain fixture, a tube for insertion in a hem in the lower edge of a curtain, an outwardly spring-pressed rod in the tube, a T-shaped head which is positioned with its stem slidably 15 mounted in the end of the tube in fixed telescopic association with the outer end of the rod, said stem having a groove therearound, and a ferrule of less diameter than the stem positioned within said groove in the latter and riveted to 20 the rod.

3. In a curtain fixture, a tube for insertion in a hem in the lower edge of a curtain, an outwardly spring-pressed rod in the tube, a T-shaped rubber head which is positioned with its stem 25 portion slidably mounted in the end of the tube, and a connection between said stem portion and rod, said head being arranged with the vertically extending portion thereof spaced from the end of the tube when the rod is in its outwardly pressed 30 position, whereby to permit the vertically extending portion of the head to flex with respect to the stem portion at the point of junction with the latter.

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