Dec. 31, 1929. R. T. MARKEE 1,741,946

AUTOMOBILE ROOF LINING CONSTRUCTION

Filed Aug. 13, 1926

Fig. 2.

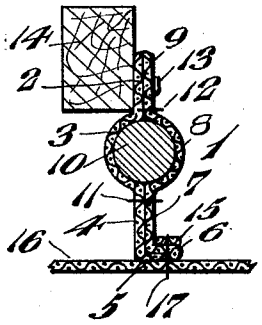


Fig. 1.

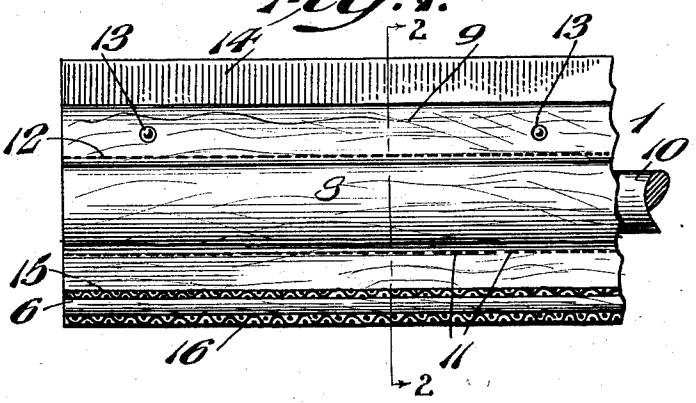


Fig. 4.

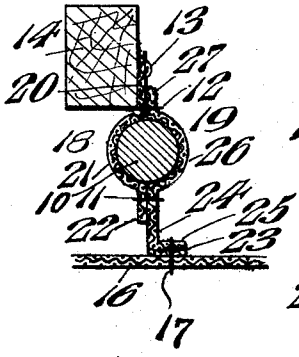


Fig. 3.

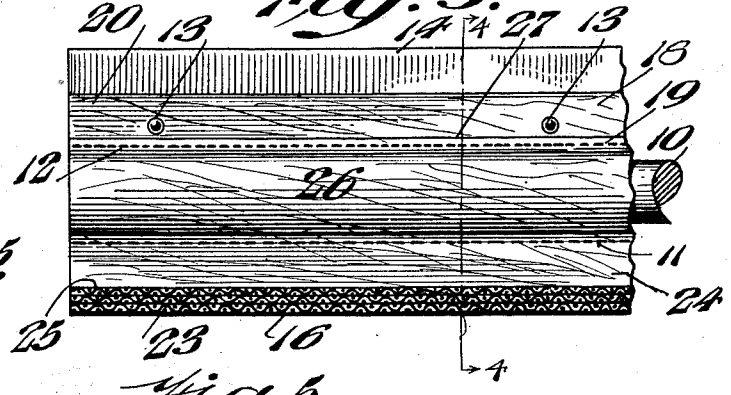
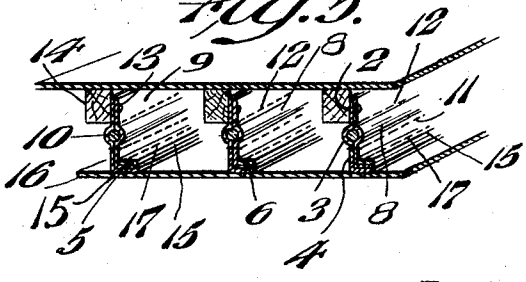


Fig. 5.



INVENTOR

REUEL T. MARKEE

By Middleton & Fairbanks.

ATTORNEYS.

Patented Dec. 31, 1929 1,741,946

UNITED STATES PATENT OFFICE

REUEL T. MARKEE, OF PHILADELPHIA, PENNSYLVANIA

AUTOMOBILE ROOF-LINING CONSTRUCTION

Application filed August 13, 1926. Serial No. 128,954.

My invention relates to a new and useful roof lining construction in automobile bodies and it relates more particularly to a new and useful lining hanger adapted to be used in the lining of the underside or "ceiling" of the roofs of automobiles and the like, particularly closed automobiles.

It has been the practice heretofore, in lining the inside of the roof of an automobile or the like, to tack the lining material directly into a series of spaced and parallel cross bars, forming the frame work of such roof. This practice is disadvantageous in that it leaves the lining material thus supported, loose and sagging, both between the spaced cross bars, and between the points of fastening; provides a rather insecure anchorage for the lining, since the tacks very frequently work loose because of the weight of the lining material hanging therefrom, and such construction greatly shortens the life of the lining material, by the frequent tearing of such material at the tacked points, due to the concentration of the strain of the weight of the lining material, upon the relatively few points of tacking.

The object of my present invention is to provide a novel roof construction including a lining hanger or support, whereby it is possible quickly and economically to secure the desired lining to the underside of any desired roof, and to maintain the same taut at all times, and secure against tearing.

With the above ends in view, my invention consists of a lining hanger made of flexible fabric, a reinforcing bar encased in said fabric, and a reinforcing srtip superimposed upon and secured to the edge of said lining hanger where the same comes in contact with and is secured to the lining material proper.

For the purpose of illustrating my invention, I have shown in the accompanying drawings, forms thereof which are at present preferred by me since they will give in practice, satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Referring to the drawings:—

Figure 1 represents a front elevation of a hanger embodying my invention, as applied to a cross bar of an automobile roof.

Figure 2 represents a vertical section on line 2—2 of Figure 1, illustrating the manner in which the hanger of my novel construction is applied to a cross bar of the roof, and the manner in which the lining material is supported by said hanger.

Figure 3 represents a front elevation of a modified construction of a lining hanger embodying my invention.

Figure 4 represents a vertical sectional view on line 4—4 of Figure 3.

Figure 5 represents a fragmentary sectional view, partly in perspective, of an automobile roof, illustrating the application of my novel lining hanger.

Referring to the drawing, in which like reference characters indicate like parts, 1 designates a lining hanger of my novel construction, the same being composed of a single strip of any suitable flexible and durable fabric, folded back upon itself to form on one side of the hanger, the upper vertical portion 2, the convexed portion 3, the lower vertical portion 4, and the lower horizontal portion 5, and to form on the other side of the hanger the corresponding upper horizontal portion 6, the lower vertical portion 7, the convexed portion 8 and the upper vertical portion 9. The fabric strip may be folded back upon itself either along the lower edge of the hanger, common to the two contiguous horizontal portions 5 and 6, as shown in Figure 2, or along the upper edge of the hanger, common to the two contiguous upper vertical portions 2 and 9. The two convexed portions 3 and 8 form an elongated tube, in which is snugly fitted the reinforcing rod or bar 10, which is tightly retained in position by the rows of stitches 11 and 12 passing through the contiguous vertical portions 4 and 7, and 2 and 9 respectively. 13 designates a tack or other fastening device passing transversely through the upper vertical portions 2 and 9 of the lining hanger 1 into the cross bar 14 in the roof

of the automobile in a generally horizontal direction, or at a right angle to the direction of the load of the lining supported thereby. 15 designates a reinforcing strip superimposed upon the horizontal portions 5 and 6 and secured thereto and to the lining 16 by the row of stitches 17, passing therethrough.

In Figures 3 and 4 I have illustrated a modified construction of an automobile roof lining hanger, embodying my invention, in which I employ two separate strips of fabric 18 and 19 (see Figure 4), instead of the single strip of fabric folded back upon itself as shown in Figure 2. Thus the strip of fabric 18 comprises the upper vertical portion 20, the convexed portion 21 and the lower vertical portion 22, while the fabric strip 19 comprises the lower horizontal portion 23, the lower vertical portion 24, the convexed portion 26 and the upper vertical portion 27. Over the horizontal portion 23, is superimposed the reinforcing strip 25, the two being then secured together and to the lining 16, by the row of stitches 17 passing therethrough. The stitches 11 and 12, not only serve to retain the reinforcing bar 10 in position in the tubular chamber formed by the convexed portions 21 and 26, but also serve to join and secure together the two strips of fabric 18 and 19 of which the lining hanger is composed.

In Figure 5 I have illustrated the manner in which the lining 16 is secured to the "ceiling" or the underside of the roof of an automobile, by the series of lining hangers of my novel construction. Thus, I take a number of complete lining hanger units, as seen in Figures 2, 4 and 5, equal to the number of cross bars in the roof of the automobile, and sew the same onto the lining material to be used, at suitable intervals, substantially equal to the space between the corresponding cross bars. I then proceed to tack or otherwise secure the lining hanger in place, on the vertical edges of said cross bars, thus stretching the lining material taut as the work of fastening the hangers to the cross bars progresses. It will also be seen from Figures 2, 4 and 5, that the tack 13 from which the lining hanger of my novel construction is supported, is driven into the cross bar at a right angle to the pendant lining hanger, thus practically eliminating the outward tension or pull on the tacks, and preventing the same from working loose. It will also now be apparent that I have devised a lining hanger of a durable construction, of universal applicability and one which can be economically manufactured and assembled and very easily installed. I also effect a neat appearance in the inner lining of the roofs of automobiles by my novel construction, and reduce to a minimum the necessity for repair and replacement.

It will now be apparent that I have devised a new and useful automobile roof lining construction which embodies all advantages enumerated as desirable in the statement of the invention and the above description, and while I have in the present instance shown and described preferred embodiments thereof which will give in practice satisfactory and reliable results, it is to be understood that such embodiments are susceptible of modification in various particulars without departing from the spirit or scope of the invention, or sacrificing any of its advantages.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

In a roof structure including cross bars and a lining, an intermediate lining hanger, consisting of a one piece strip of fabric longitudinally arranged and doubled upon itself and having upper and lower horizontal lines of stitching to form a longitudinal horizontal pocket of substantially circular cross-section, the doubled portions above and below said lines of stitching forming upper and lower doubled vertical walls, means for securing the upper of said walls to a cross bar of said roof, the lower of said doubled walls terminating in a right angle doubled foot portion, a longitudinal horizontal reinforcing strip superimposed upon said doubled foot portion, a line of stitching passing through said reinforcing strip, said doubled foot portion and said lining, and a reinforcing rod encased in and extending throughout the length of said pocket.

REUEL T. MARKEE.