

Feb. 21, 1933.

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1,898,195

CAR LINER

Filed May 12, 1932

Fig. 1.

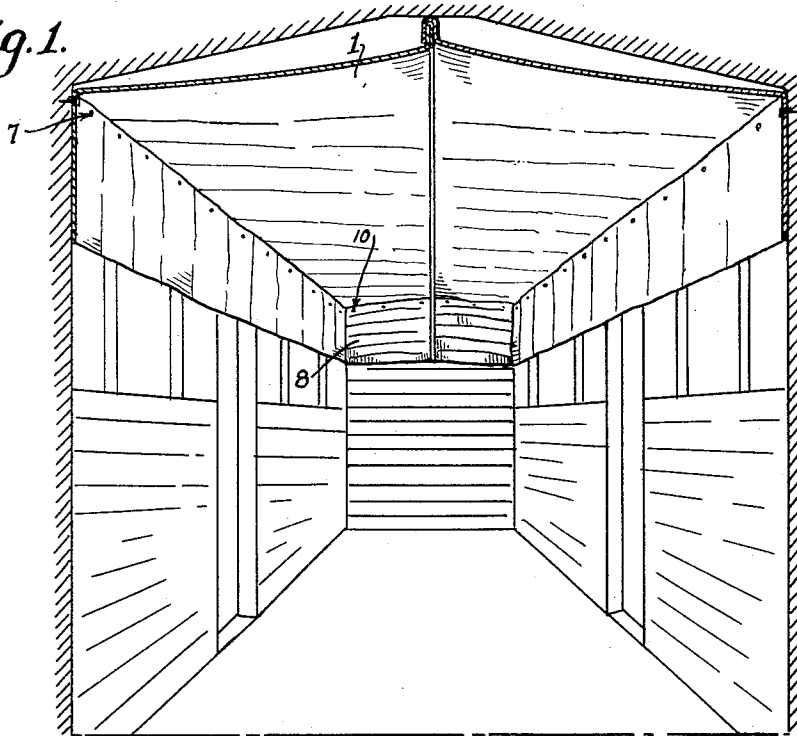


Fig. 2.

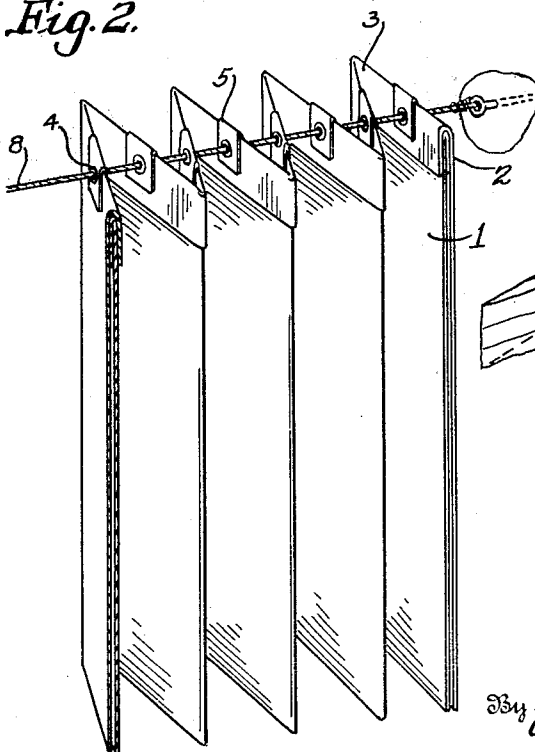
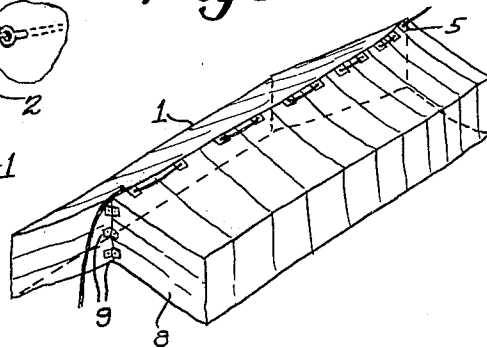


Fig. 3.



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CAR LINER

Application filed May 12, 1932. Serial No. 610,906.

This invention relates to ceiling liners for freight cars designed for the protection of goods shipped in the freight car from leakage of moisture or the sifting of dust through the car roof. It relates to that type of ceiling liner comprising a flexible sheet of material, preferably, from the standpoint of cost, of paper, either water-proof or semi-water-proof, folded into a relatively small package prior to use and adapted to be spread the full length and width of the car ceiling, with marginal portions adapted to be defined by tacking the liner close into the roof angles and to extend a short distance down the sides and ends of the car.

The spreading of a canopy of such unwieldy size is ordinarily extremely unhandy, particularly when it is made of paper, and it frequently becomes torn in the operation, impairing its value as a shield for the protection of the underlying goods.

The present invention has for its principal object, the packaging of the tent in the form of a longitudinally folded sheet disposed in a compact, orderly series of folds or accordion pleats, extending alternately in opposite directions and being provided along its longitudinally folded edge with alining grommets, one for each pleat, through which, while the sheet is still in compact folded state, a suspension wire may be passed for suspending the packaged liner longitudinally along the median line of the car near the roof by stretching the wire longitudinally and securing it in any desired manner to the opposite end walls of the car, from which position the liner may be readily expanded, both longitudinally and withwise without the risk of its being torn and in a manner greatly to facilitate its installation.

Other objects of the invention will appear as the following description of a preferred and practical embodiment thereof proceeds.

Referring now to the drawing which depicts an illustrative embodiment of the invention, and throughout the several figures of which, the same characters of reference have been employed to designate identical parts:

Figure 1 is a perspective view of a freight

car showing the liner of the present invention in installed position;

Figure 2 is a perspective view of a portion of the liner in suspended position, but expanded only sufficiently to illustrate the aligned relation of the grommets and the manner of introducing the wire or cord there-through while the package is folded; and

Figure 3 is a perspective view of the liner in fully expanded position, forming a roof tent for the interior of the freight car.

Referring now in detail to the several figures, the numeral 1 represents the liner which is a sheet of flexible material preferably a heavy grade of paper. As shown, it is in two parts, united by a seam 2 in which the edges of the two parts are pasted together. The liner is folded longitudinally along this seam. It is also folded in the form of a series of accordion pleats 3 of any suitable width so as to reduce the bulk of the sheet down to a compact orderly package. Along the seam 2 and preferably, although not necessarily, centrally of the pleats, a series of eyelets or grommets 4 are provided, said grommets being preferably set in reinforcing tabs 5, folded over the edge of the seam 2 and being retained beneath the riveted ends of the grommets. When the accordion pleats 3 are pressed flat together, the grommets 4 are in alinement. When in this position, a string or wire 6 can be passed through the grommets without difficulty.

The liner is installed by driving a nail or screw eye in the opposite end walls of the car near the roof and in the median line of the car. The wire or cord 6 is suspended in taut relation between said nails or screw eyes with the packaged liner threaded thereupon in the manner shown in Figure 2. It is then pulled out longitudinally for a certain distance and then spread laterally by the operator standing under it and pushing the unfolded sheet snugly in the longitudinal roof angles of the car and tacking it in place in said angles as indicated at 7 in Figure 1. If the tent is to be folded down against the ends of the car as shown at 8 in Figure 1, then two or three of the pleats should be left off of the suspending cord or wire as shown at 9 in Figure 3, and

the free portion folded down by pressing it snugly into the roof angle at the ends of the car and securing it as by the tacks 10.

In this manner the lining or roof tent may be installed with facility and without the risk of tearing the paper, since not only is the liner suspended throughout its length by the cord or wire 6, but the compactness of the packaged sheet and the fact that the wire can be threaded through the grommets while it is still in folded position makes it but the work of a moment to get it ready for installation as contrasted with the usual method of unfolding an unwieldy sheet and passing a string individually through grommets or other apertures formed in its top.

While I have in the above description disclosed what I believe to be a preferred and practical embodiment of my invention, it is to be understood that the details of construction as shown and described are merely illustrative and not to be construed as limiting the scope of the invention as claimed.

What I claim is:

Car liner comprising a flexible sheet of material of sufficient stiffness to lie when folded in planar areas, said sheet being folded double longitudinally to form a single longitudinal mid-seam, the thus folded sheet being folded along lines perpendicular to the line of said longitudinal fold, in alternately reversed directions forming a series of pleats, grommets set in said pleats adjacent the line of said longitudinal fold, said grommets being located so as to aline when said pleats are laid together for receiving a suspending element adapted to be stretched from end to end of a car, and the sides of said folded sheet being adapted when said mid-seam is extended, to be spread laterally in opposite directions and secured in spread position, forming a canopy.

In testimony whereof I affix my signature.
GUS OLIVER LORENZ.

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