Sept. 24, 1929. W. G. DUNN 1,729,159

BINDER STRIP

Filed Nov. 28, 1927

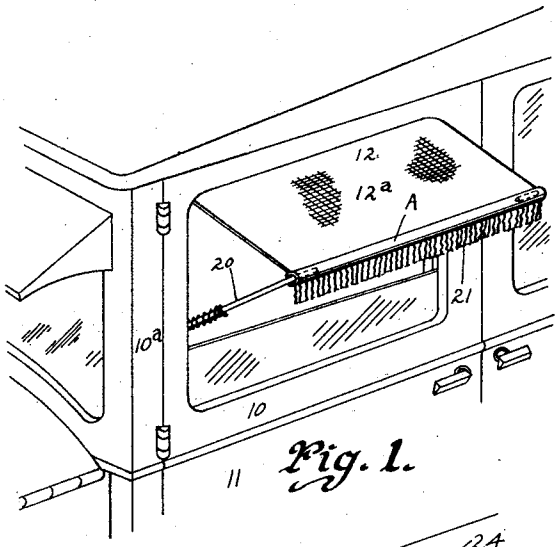


Fig. 1.

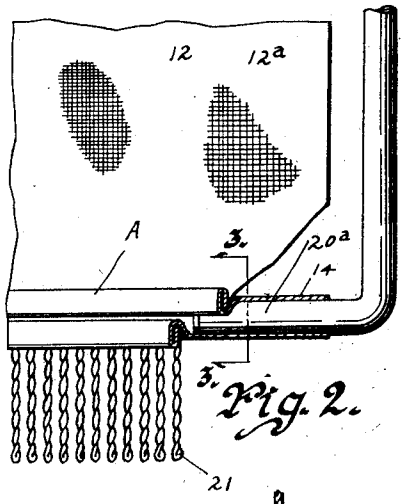


Fig. 2.

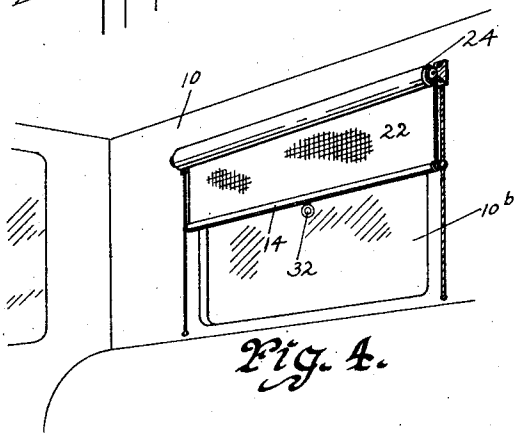


Fig. 4.

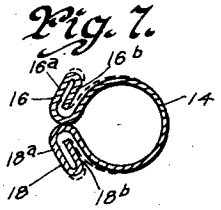


Fig. 7.

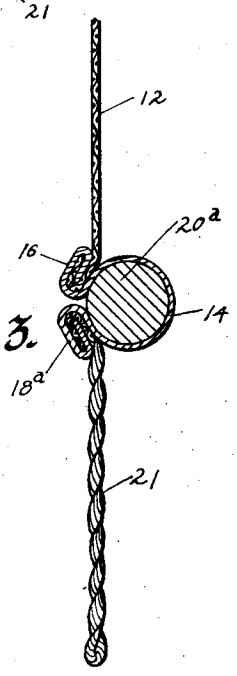


Fig. 3.

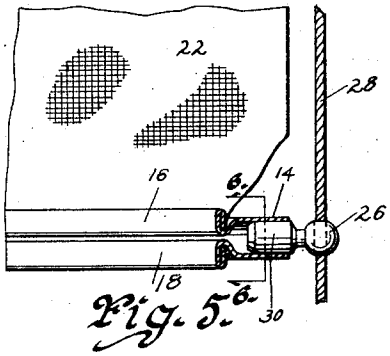


Fig. 5.

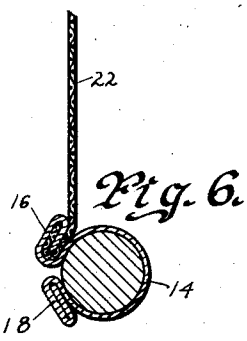


Fig. 6.

Witness
C. J. Dykstra

Inventor
William G. Dunn
by Bair & Freeman Attorneys

Patented Sept. 24, 1929 1,729,159

UNITED STATES PATENT OFFICE

WILLIAM G. DUNN, OF CLARINDA, IOWA

BINDER STRIP

Application filed November 28, 1927. Serial No. 236,194.

The object of my invention is to provide a binder strip of simple, durable and inexpensive construction adapted for use in providing a rigid binder member for the lower or free edge of an awning, curtain, window shade or the like.

More particularly, it is my object to provide a binder strip of the kind mentioned in the form of a split cylinder, having means along its edges for securing thereto the free edge of a curtain, awning or the like, and for securing thereto, if desired, a fringe, cord or other parts.

My present device utilizes in part the principles of construction displayed in my copending application Serial No. 236,193, filed Nov. 28, 1927.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my binder strip, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of a portion of an automobile body equipped with an awning having a binder strip embodying my invention.

Figure 2 is a view of the under side of a corner of the awning shown in Figure 1, part of the binder strip being shown in section.

Figure 3 is a detail, sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a perspective view of a portion of an automobile body having a window equipped with a curtain having installed at its free edge a binder strip of the kind shown herein.

Figure 5 is a view illustrating a corner of the outside of the curtain, part of the binder strip being shown in section.

Figure 6 is a detail, sectional view taken on the line 6—6 of Figure 5; and

Figure 7 is a detail, transverse sectional view through the metal binder strip alone.

In the acompanying drawings, I have shown in Figures 1 and 4 a portion of an automobile body indicated by the reference numeral 10. The body 10 has the window 10^a located for instance in the door 11 and the window 10^b (Figure 4) for instance at the rear part of the body.

The window 10^a is equipped with an awning 12, having at its free edge my binder strip shown generally at A. The awning 12 comprises a flexible member 12^a.

For affording a binder strip for the free edge of the member 12^a, I have provided a split, resilient tube 14, having at its free edges portions 16 and 18 bent to form the double folds, comprising the portions 16^a, 16^b, 18^a and 18^b respectively.

In assembling my binder strip on the awning member 12^a, the free edge of the awning member is folded to lie between the members 16^a and 16^b and is extended around the edge of the member 16^b, and is brought out from the folds between the member 16^b and the body of the tube 14, as clearly shown in Figure 3.

Where a fringe 21 is used, the upper edge of the fringe is folded and gripped between the members 18^a and 18^b and the member 18^b and the tube 14, as shown in Figure 3.

Where a binder strip of this kind is used with an awning or curtain, especially of the type used on motor vehicles, it is desirable that the strip be connected with some support or guide means.

I have shown two different types of such devices in Figures 1 and 5.

In Figure 1, I have shown the arms 20 pivoted to the frame of the door 11, and having at their outer or free ends the right-angled extensions 20^a. These extensions 20^a are connected with the split tube 14 by forcing them into the ends of the tube. The diameter of the tube in its normal position is less than the diameter of the extension 20^a, so that when the extension 20^a is forced into the end of the tube 14, the tube will be expanded and will thus frictionally grip the extension 20^a.

In Figures 4 and 5, I have shown my binder strip used in connection with a curtain 22 supported on a roller 24 above the window 10^b. The lower end of the curtain is connected with a binder strip similar to that already described, in that it has the split tube 14 connected with the curtain 22 in the

same manner that the tube 14 is connected with the awning 12, shown in Figures 1 and 2.

When my binder is used on a curtain, a guide member 26 may be provided to slide on cords 28. The guide member 26 preferably has a solid cylindrical extension or expander 30, which may be forced into the end of the tube 14, so that it will be firmly frictionally gripped.

There is thus afforded a means for connecting the guide or supporting member 26 with the split tube 14.

In the form of the device shown in Figures 4 and 5, I have omitted the fringe 21, but I have shown a tassel and handle 32 gripped between the members 18^a and 18^b and between the member 18^b and the body of the tube in the same manner that the fringe 21 is installed as already described.

The advantage of a binder strip of this kind lies largely in its extreme simplicity of construction, the cheapness with which it may be made, and the ease and simplicity with which it may be connected with the curtain or awning flexible member, its adaptability for use with awnings or curtains of different thicknesses, and the ease with which a supporting or guide device may be connected with it.

I claim as my invention:

1. A binder strip for the edge of flexible elements comprising a split resilient tube having one edge folded with a double fold to receive the edge of the flexible member and a supporting means received in the end of the tube, said supporting means being slightly larger in diameter than the normal inside diameter of said split tube whereby it spreads the same when received in the end thereof.

2. In a structure of the class described, the combination of a flexible member and a strip of fringe with a binder strip, comprising a split resilient tube having its edges folded in double folds extending away from each other, one edge of the flexible member being folded into and gripped between the members of one of said double folds and one edge of said strip of fringe being folded into and gripped between the members of the other of said double folds.

3. The combination of a flexible member with a binder strip comprising a split resilient tube having one edge connected with one edge of the flexible member and supporting means frictionally gripped in the ends of the tube, said means being larger in diameter than the interior of said ends whereby such friction is caused.

Des Moines, Iowa, November 1, 1927.

WILLIAM G. DUNN.