May 9, 1933. W. C. FISHER 1,908,233

UPHOLSTERED ARTICLE

Filed Nov. 23, 1932 2 Sheets-Sheet 1

Fig. 1.

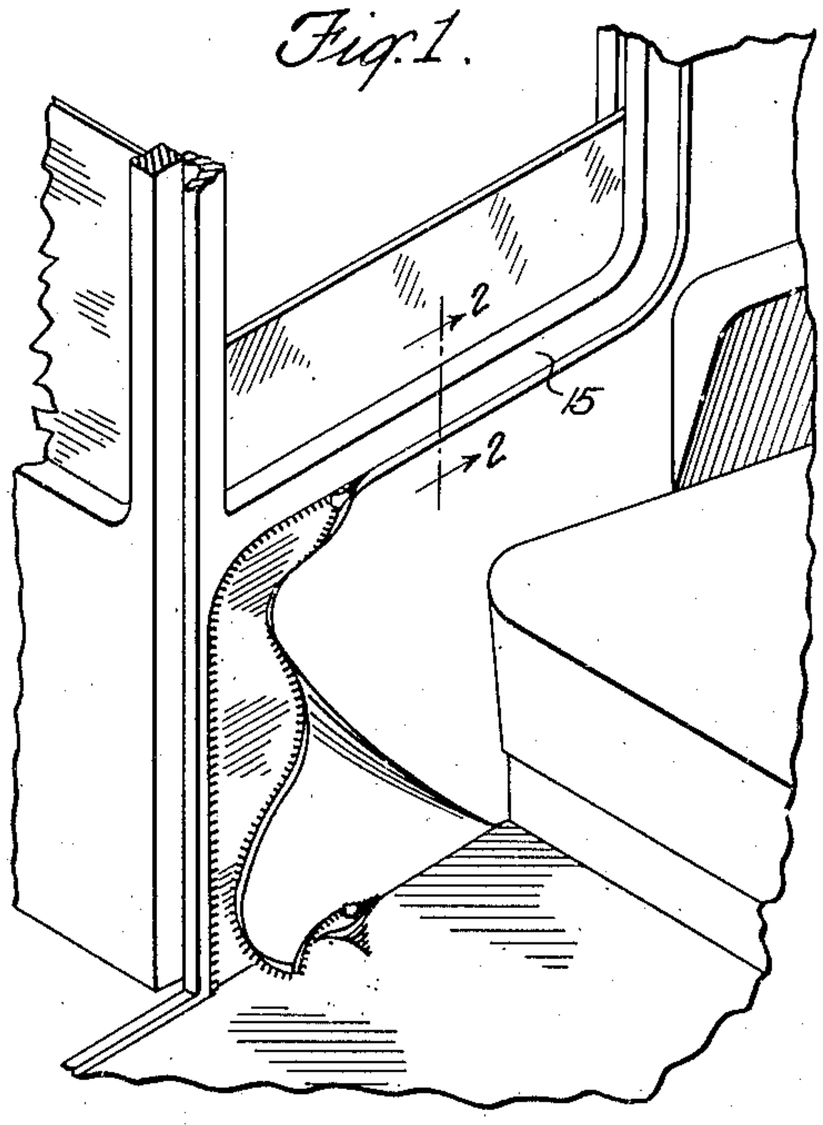


Fig. 5.

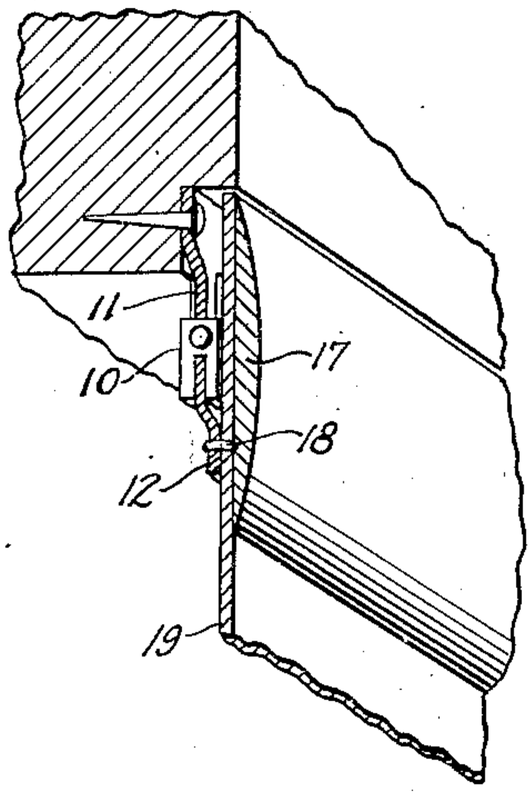


Fig. 3.

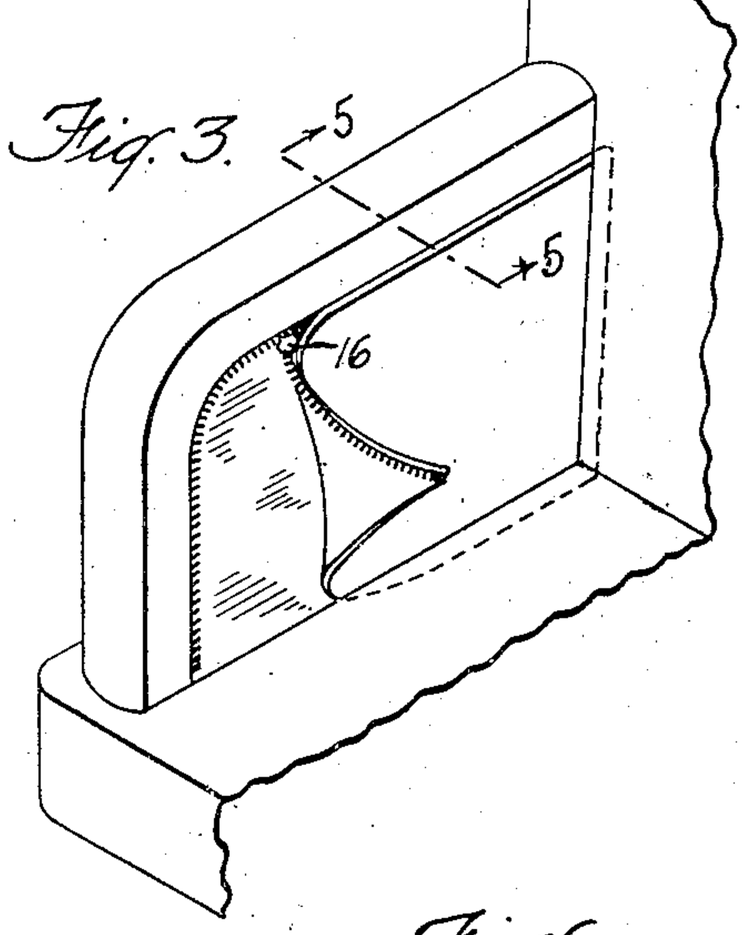


Fig. 4.

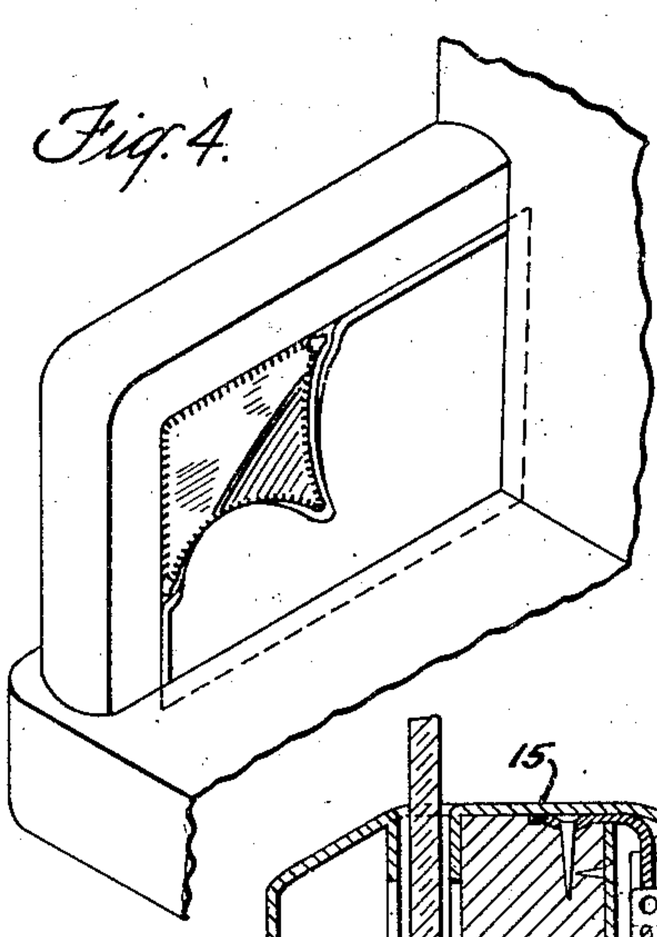
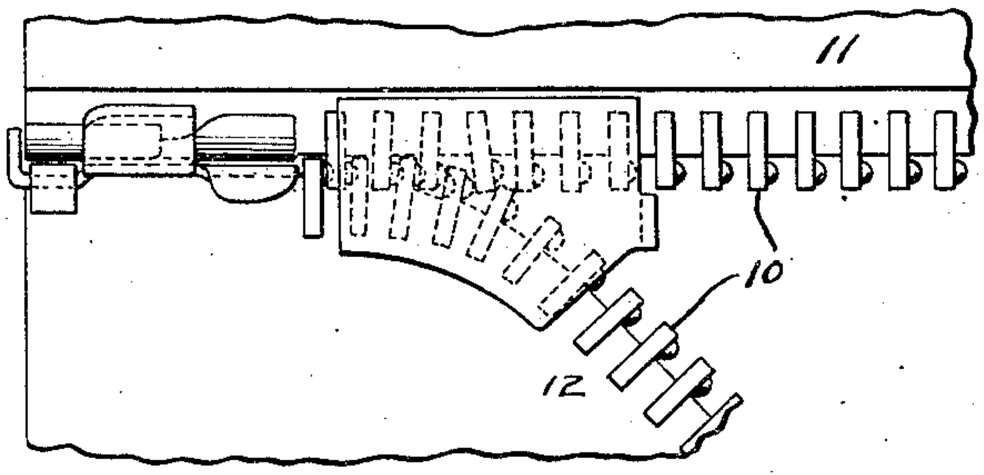


Fig. 6.



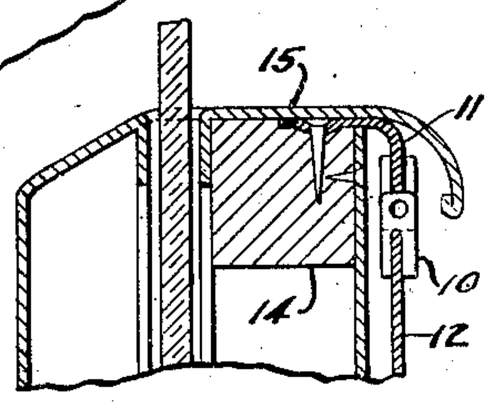


Fig. 2.

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UPHOLSTERED ARTICLE

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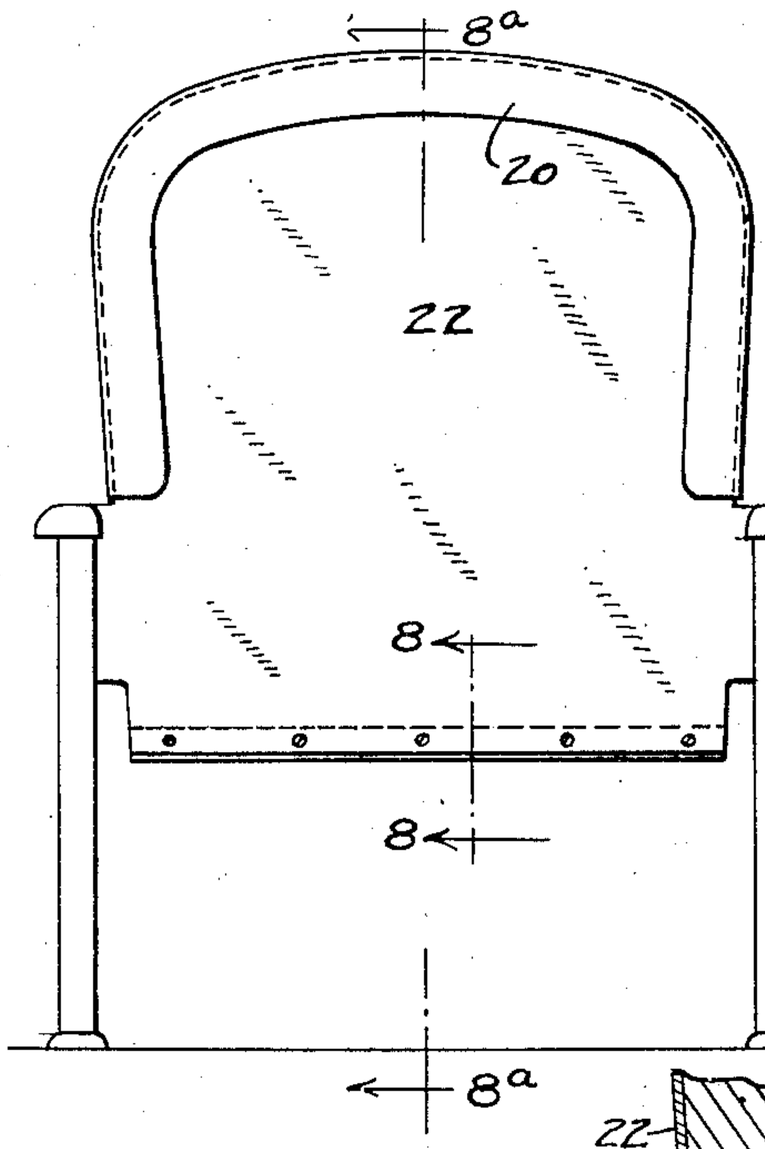


Fig. 7.

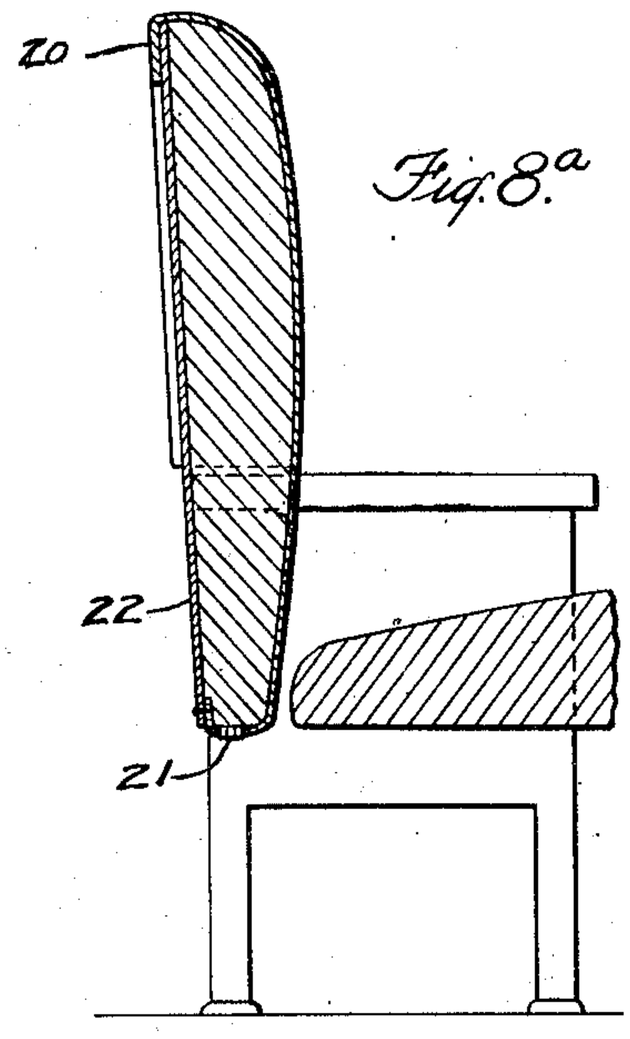


Fig. 8a.

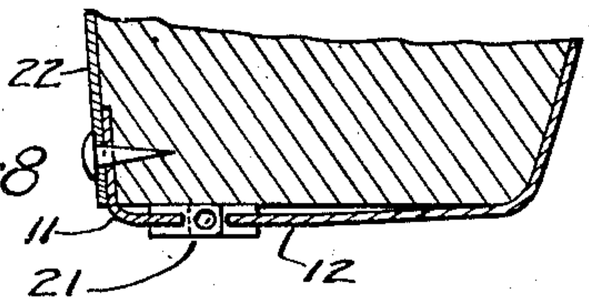
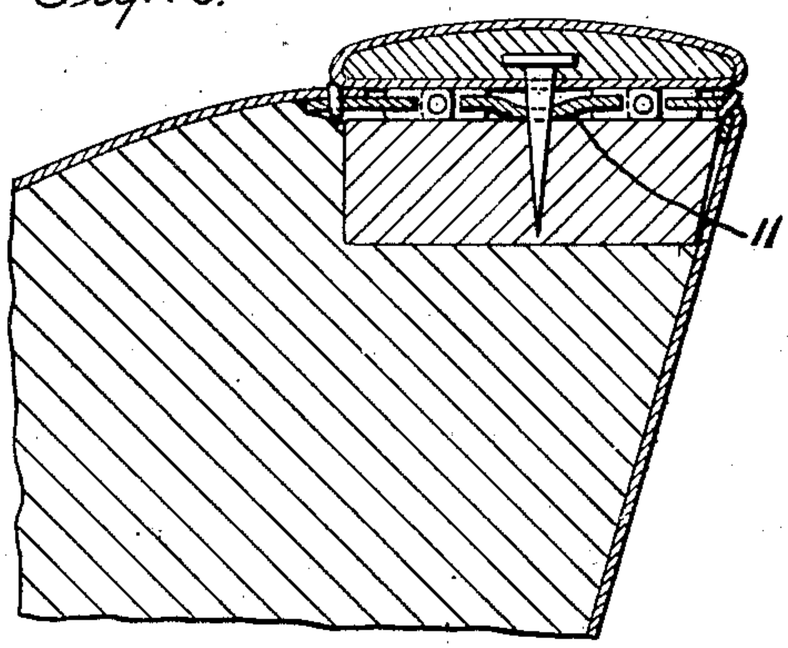


Fig. 8

Fig. 10.



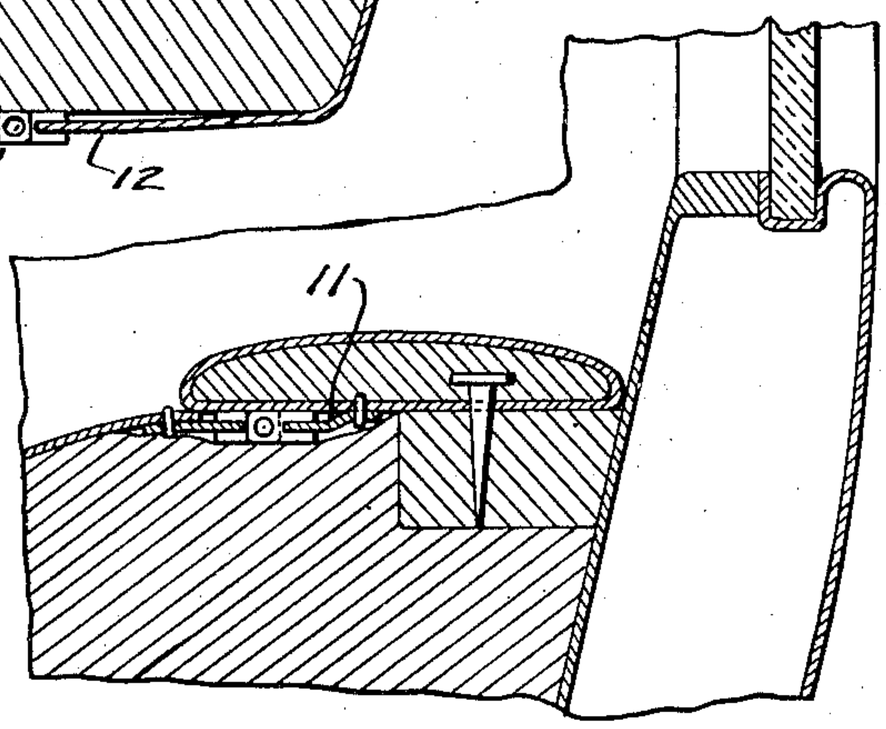


Fig. 9.

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Patented May 9, 1933 1,908,233

UNITED STATES PATENT OFFICE

WILLIAM C. FISHER, OF NEW YORK, N. Y., ASSIGNOR TO W. & J. SLOANE, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

UPHOLSTERED ARTICLE

Application filed November 23, 1932. Serial No. 643,962.

This invention relates to an upholstered article in which the upholstery is removably secured to a rigid part of the article. More particularly, the invention relates to an upholstered article in which the upholstery is uniformly secured to the article by means of a slide fastener, one side of which is firmly held by the rigid part of the article and the other side of which is attached to the flexible upholstery material.

Prior to my invention slide fasteners have been applied to numerous uses where they have replaced buttons, hooks, clasps, snap fasteners, straps, ties, etc., but in all such cases the fasteners have been used to close a cut or opening in a flexible material and the slide fastener has not heretofore been recognized as a means for securing flexible material to a rigid frame or other rigid portion of an article.

It is a primary object of the present invention to provide means of securing upholstery to an article such, for example, as a chair in which the part thereof which is to be covered is such as to preclude holding a cover thereon by virtue of its own fit and to which the upholstery must, therefore, be secured. In this aspect the invention is designed to carry forward the objects and obtain the advantages set forth in my copending application Serial No. 643,961 filed herewith.

In its broader aspect, however, the invention may be applied wherever it is desired to secure a flexible material to a rigid portion of an article.

In the accompanying drawings I have shown several examples of uses and applications of my invention as illustrative of how the invention may be embodied in practice.

Figure 1 is a perspective view of the interior of an automobile tonneau illustrating how the invention may be utilized for removable upholstery in interiors of automobiles, busses, railway cars, etc.

Figure 2 is a cross section taken on the line 2—2 of Figure 1 showing in detail the particular method of attaching the slide fastener to the rigid frame which is used in this case.

Figure 3 is a fragmentary perspective illustrating the application of the invention to an upholstered chair.

Figure 4 is a view similar to Figure 3 showing a chair having a sharper corner.

Figure 5 is a cross sectional view taken on the line 5—5 of Figure 3 showing in detail a method of securing the fastener to the frame.

Figure 6 is a detail view illustrating a modified slide key which may be used in connection with the present invention.

Figure 7 is a view in rear elevation of a theatre chair embodying this invention.

Figure 8 is an enlarged vertical section taken on the line 8—8 of Figure 7.

Figure 8[a] is a vertical section taken on the line 8—8 of Fig. 7.

Figure 9 is a vertical section through the upper portion of an automobile seat made according to my invention.

Figure 10 is a vertical section through the upper portion of a front seat of an automobile.

Referring to Figures 1 and 2, the slide fastener which I prefer to use is similar to those commonly used for clothing and other purposes where two edges of a flexible fabric are to be joined together. This may consist, for example as shown in Figures 2, 5 and 6, of interlocking fastener elements 10 secured to strips 11 and 12 in spaced relation, the fasteners on the two strips being staggered and being spaced so that when joined together, as shown in Figure 6, the elements on one strip substantially completely fill the spaces between the elements on the opposite strip and the projection on each is held in the complementary depression on the adjoining element.

Slide fasteners such as these are commonly made up with the elements 10 secured to fabric tapes which are then sewed to the materials which are to be joined by the fastener. I may use this standard fastener in my invention, as shown in Figure 2, merely securing the tape on one side of the fastener to the frame 14, e. g., in the automobile construction shown in Figures 1 and 2, by clamping it between the body frame 14 and

the window sill 15 or other part. This, of course, is exemplary merely and other types of slide fastener may be used. If the fabric tape is wide enough to leave a substantial width between the edge of the rigid member and the fastener elements 10, the standard slide key, which is curved in both directions, as shown for example at 16 in Figure 3, may be used.

Frequently, however, it will be desirable to position the fastener elements close to or even beneath the window sill or other part to which they are secured, as shown for example in Figure 2, so that they will be inconspicuous when the removable cover is removed. Thus, for example, where a permanent upholstery is secured in the car by the manufacturer and the fasteners are provided for use in attaching tailored slip covers for summer driving or for applying additional upholstery when the original upholstery is soiled, it may be unsatisfactory to have to hide a substantial length of tape beneath braid or fringe, etc., and in such case substantially only the elements 10 will be allowed to project from the window sill or braid edge, e. g., as shown in Figures 2, 9 and 10; and in this case the slide key is preferably made with one straight side and with one side more sharply curved than usual, as shown for example in Figure 6.

In the upholstering of furniture it is frequently desired to leave the natural wood or metal exposed along the tops of the arms or along the front and sides of the frame, or the entire frame may frequently be exposed, with the upholstery only between the frame members. In such case the edge of the upholstery is ordinarily finished off against the wood or metal by means of a decorative braid or tape either alone and designed to hide the tacks by which it is attached, or combined with decorative nails. In Figures 3, 4 and 5, I have illustrated how my invention may be applied to the upholstery of such furniture. Ordinarily a groove is provided so that the edge of the fabric and of the braid, if such is used, will be hidden in the groove. Following my invention, a similar groove would be used but may be somewhat deeper so as to accommodate the fastening elements 10, and somewhat narrower so that the fastening elements will extend beyond the rigid frame, as shown in Figure 5. In order to provide a neat finish for the edge, it may often be desirable to provide a stiffening strip of a material, e. g., vulcanized rubber, which, although capable of yielding to permit the operation of the slide fastener, will, when released, lie flat and smooth over the fastener. Thus, for example as shown in Figure 5, a fairly wide finishing strip 17 of this kind is provided, which is secured to the tape 12 of the slide fastener between its ends, as shown at 18. In this way the tension on the fabric 19, after the fastener is closed, pulling upon the edge of the strip 17 will assure its lying flat and in the desired position, but, while the fastener is being opened or closed, the strip 17 may be bent back to accommodate the flexing of the fabric acquired for operation of the fastener.

In the example illustrated in Figure 5, the strip 11 is secured in place by nailing. Ordinarily, this will be satisfactory even with a textile fabric tape, but in cases where the nails, screws, etc. must be widely spaced it is entirely possible to use, in this case, a sheet metal strip 11 upon which the elements 10 are pivotally secured so that by being moved in one direction or the other they can allow the insertion or withdrawal of the complementary elements 10 on the tape 12, as shown, for example, in the dotted lines in Figure 6.

Where, as shown in Figure 3, the corners may be rounded on a substantial radius, it will ordinarily be satisfactory to use a single slide fastener following around the corner. If this is not permissible, however, and a sharper corner is required, e. g., as shown in Figure 4, I ordinarily prefer to use two separable slide fasteners meeting at the corner. These fasteners may, for example, be of the type shown in Figures 8, 9 and/or 16 in my copending application Serial No. 643,961 and may, as therein disclosed, be made so that the slide key can be entirely removed.

Others of the expedients shown in my said copending application may also be used in connection with this invention as, for example, the methods of hiding the fastener and slide key as shown in Figures 11 to 16 of said application, and the method of providing for tufted cushions as shown in Figures 6 and 10 thereof.

In Figures 7 and 8 I have shown how the invention may be utilized in upholstering the back of a theatre seat. These seats are ordinarily made with metal backs 22 so as to avoid wear and soil on the upholstery from scuffing of the shoes of patrons in the seats behind. The upholstery commonly extends down along the back for a short distance from the top and the remainder of the back is of metal. I have found that a very satisfactory upholstery for such a seat may be made by accurately tailoring the upholstery material to fit the part of the seat which is to be covered. The hood, which is formed by the short portion 20 on the back of the seat, holds the top of the upholstery securely in position and after the rest of the upholstery has been smoothed into place the bottom edge is drawn beneath the back of the seat and secured by a slide fastener at 21.

The strip 12 on one side of the slide fastener 21 is sewn to the bottom of the upholstery, whereas the strip 11 on the opposite

side is clamped, as more clearly shown in Figure 8, beneath the sheet metal back 22, which is screwed to the bottom of the back. In this case as in the others illustrated and described herein, I prefer to clamp the strip 11 directly to the rigid portion of the article so as to bring the fastener as close thereto as possible. In some cases, however, it may be desirable to position the fastener somewhat farther from the rigid element, in which case a broader tape 11 may be used or the tape may be secured to an intermediate strip. Similarly, in the example shown in Figures 9 and 10, the strip 11 may be sewn to the edge of the upholsterer's tape or braid or other edge-finishing material so that it is indirectly secured to the rigid part through this braid, etc., or it may extend therebeneath so that the two are tacked, etc., to the frame at the same time.

It is to be understood that the accompanying drawings and the above description are intended only for the purpose of illustration and are in no way to be taken as limiting the invention. On the contrary, numerous changes and modifications may be made within the scope of this invention and each job of upholstering will present minor problems which will call for variations in the particular embodiment of the invention. The present invention offers a broadly new method of attacking the problem of upholstering with outstanding advantages and, regardless of such minor variations, these outstanding advantages of my invention will be attained.

What I claim as new is:

1. An upholstered article comprising a rigid member, removable upholstery and a separable slide fastener having one side thereof secured to said rigid member and the other side secured to the upholstery.

2. An upholstered article as defined in claim 1 in which the upholstery is tailored to fit accurately the part of said article which is to be covered thereby and is drawn snugly thereover by the slide fastener.

3. An upholstered article as defined in claim 1 in which the rigid member is grooved to receive the edge of the upholstery and the edge of the slide fastener is secured therein whereby the upholstery is held substantially flush with an exposed portion of the rigid member and the upholstery extends over said slide fastener abutting against the edge of said groove.

4. An upholstered article as defined in claim 1 in which the edge of the upholstery is stiff and the stiffened portion extends beyond the line along which it is joined to the slide fastener whereby the free edge of said stiffened portion is held substantially aligned with the fabric by a cantilever action.

5. An upholstered article comprising removable flexible upholstery, a substantially rigid member, a slide fastener having one side thereof secured close to said rigid member and the other side secured to said upholstery, and a key for operating said slide fastener to close or separate, having one side thereof approximately parallel to the line of said fastener when closed and the other side thereof curved sharply away from said line.

Signed at New York, N. Y., this 22d day of November, 1932.

WILLIAM C. FISHER.