

PATENT SPECIFICATION

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(54) PROTECTOR MEMBERS FOR RELEASABLE ATTACHMENT TO SEATS

(71) We, GEORGE NORMAN & Co. Pty. LTD., a company incorporated under the laws of the State of Victoria, Commonwealth of Australia, of 129 Clarendon Street, South Melbourne, in the State of Victoria, Commonwealth of Australia, hereby declare the invention for which we pray that a patent may be granted to us and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to the releasable attachment of disposable members of the kind used to protect the backrest or headrest of a seat against soiling to such seats. It will be convenient to hereinafter refer to such protector members as headrest covers, and the headrest may be defined by a particular zone of a seat backrest or by a separate member attached to the backrest. The invention has particular application to the seats of passenger vehicles such as aircraft, buses and trains.

Headrest covers of the kind indicated are removably attached to seats in a variety of ways, but such attaching means generally include the use of rigid fastening elements such as press-studs and buttons. It is desirable to avoid the use of rigid fastening elements, because they are usually secured to the main dust or slip cover of a seat and tend to catch during laundering of such main covers. Prior to the present invention however, a satisfactory alternative had not been devised.

It is a principal aim of the present invention to provide a protector member of the kind indicated which is of relatively simple and inexpensive construction, and which does not require rigid elements such as press-studs or buttons to be secured to the main seat cover. It is a further aim of the invention to provide a disposable protector member incorporating attaching means

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which is operative to locate the protector member in a substantially aligned position relative to a seat. That is, it is generally preferred to locate the protector member so as to lie substantially symmetrical with the longitudinal axis of the seat backrest.

A still further aim of the invention is to provide a combination of a protector member and a seat dust, slip, or permanent cover (hereinafter called the "main cover or covering") which incorporates means to enable convenient attachment and removal of a protector member.

According to the present invention there is provided a protector member for releasable attachment to the back or headrest of a seat and including a body section formed of a flexible sheet material, a tab element non-releasably connected to an edge of said body section and arranged for insertion into a pocket or recess provided on or within said back or headrest, whereby said protector member is attachable to said seat, said tab element being formed of a sheet material which is rigid relative to the sheet material of said body section, and two opposite side edges of said tab element converging over at least part of their length in a direction away from the connection between said tab element and said body section, so that said tab element has its greatest width adjacent said connection.

According to another aspect of the present invention there is provided a combination of such a protector member and a seat, wherein said pocket is formed in the covering of said seat and is positioned on the top edge surface of the seat backrest, said pocket opening rearwardly and having side edges substantially complementary to said side edges of the tab element to retain the tab element against substantial lateral movement relative to said seat, and said protector member is folded at said edge of the body section so that said body section overlies

said pocket and said element contained therein.

According to a further aspect of the present invention there is provided a combination of such a protector member with a seat dust cover, said dust cover having a pocket formed therein to slidably receive said tab element, said pocket being positioned on the top edge surface of the backrest portion of the dust cover and opening rearwardly, and opposed side edges of said pocket are arranged relative to each other to cooperate with side edges of said tab element to retain that element against substantial lateral movement relative to said dust cover.

The invention will now be further described, by way of example, with reference to the accompanying drawings, in which:—

Figure 1 is a plan view of a typical protector member according to the invention;

Figure 2 is an enlarged cross-sectional view of a fragment of the member shown in Figure 1, and taken along line II-II of Figure 1;

Figure 3 is a perspective view showing a protector member according to Figure 1 partially mounted on a seat backrest;

Figure 4 is a partially sectioned side elevational view showing the protector member of Figure 3 fully mounted on the seat backrest;

Figure 5 is a plan view of the combination shown in Figure 4 with parts broken away for convenience of illustration;

Figure 6 shows an alternative configuration for the tab receiving pocket of the main cover of a seat;

Figure 7 is a plan view of part of a modified form of a protector member according to the invention;

Figure 8 is a plan view of yet another modified form of the protector member, in which one attaching tab is shown located in its respective pocket and the other tab is about to be inserted;

Figure 9 is a side elevational view of another modified form of the invention showing the protector member mounted on a seat;

Figure 10 is a plan view of part of a protector member according to yet another embodiment of the invention;

Figure 11 is a plan view of an alternative configuration of the attachment tab of the protector member;

Figure 12 is a plan view of still another possible configuration of the attaching tab;

Figure 13 is a plan view of a modified form of seat main cover incorporating attaching means;

Figure 14 is an enlarged cross-sectional view taken along line XIV-XIV of Figure 13;

Figure 15 is a fragmentary perspective

view showing another embodiment of a seat main cover incorporating attaching means;

Figure 16 is a partially sectioned view of yet another embodiment of the attaching means in the seat main cover; and

Figure 17 shows, on a reduced scale, a protector member attached to the seat backrest shown in Figure 16.

One form of disposable cover or protector member in accordance with the invention is shown in Figures 1 to 3 and includes a body section 2 defined by a sheet of suitable material having any desired peripheral shape, and attaching means including a tab element 3 extending from one edge 4 of that body section 2. The body section 2 may be made from woven fabric, non-woven fabric, paper, or any other flexible sheet material, and it is generally preferred to have a four-sided peripheral shape as shown. That is, the side edges 5 of the body section 2 converge towards the upper edge 4 thereof to impart a functional and attractive shape to the cover.

The tab element 3 is preferably elongated for a reason hereinafter made clear, and is rigid by comparison with the material of the body section 2, although it may have some degree of flexibility. In other words, the tab element 3 is preferably made of a material such as to be self-supporting in the sense that it will not flex or bend significantly under normal gravitational forces. Some suitable materials are cardboard, fibreboard and plastics. Alternatively, the tab element 3 and body section 2 may be formed of the same material, but the tab element 3 is treated (e.g. impregnation by a stiffening agent such as starch or a plastics material) or made thicker to obtain the desired degree of rigidity. The tab element 3 extends longitudinally from the upper edge 4 of the body section 2 and is ideally located substantially central of that edge.

Any appropriate means such as stitching or adhesive for example, may be provided to secure the tab element 3 to the body section 2. In a preferred seat attachment as shown in Figures 4 and 5, the tab element 3 is folded beneath the body section 2 about a line extending substantially in alignment with the upper edge 4 of the body section 2. It is therefore convenient to secure the tab element 3 to a flap 6 (see Figures 2 and 3) forming an integral part of the body section 2, but extending beyond the upper edge 4 thereof. Preferably, the flap 6 has a size and configuration such as not to extend beyond the periphery of the tab element 3.

Tab cooperating means is secured to or forms part of the main slip, dust, or permanent, cover of a seat or chair and is preferably located on the top edge surface 7 of the seat backrest 8 adjacent the rear surface

9 thereof as shown in Figure 4. The cooperating means basically forms a pocket 11 adapted to receive the tab element 3 and having side edges 12 arranged to guide the tab element 3 into a location such that the associated body section 2 is substantially correctly positioned on the seat backrest 8. In the embodiment shown in Figures 3 to 5, the pocket 11 is defined by a patch element 13 secured to the under side of the main cover, and a slit 14 is formed in the main cover to allow passage of the tab element 3 into the pocket 11. Furthermore, the pocket 11 extends forwardly of the slit 14 so that the tab element 3 extends beneath the body section 2 of the disposable protector member when that member is correctly positioned on the seat backrest 8 as shown in Figure 4.

20 The side edges 12 of the pocket 11 may be defined by the means used to secure the patch element 13 to the main cover. That means takes the form of stitching 15 in the embodiment of Figures 4 and 5, but adhesive, or any other appropriate securing means may be used.

It has been found convenient to form the tab element 3 so that the side edges 16 (see Figure 1) thereof are substantially straight and converge away from the upper edge 4 of the body section 2, and the terminal end 17 of the tab element 3 may be curved or arcuate. The pocket 11 may have a side peripheral shape substantially complementary to that of the tab element 3, except that it may be desired to increase the divergence of the sides 13 thereof at a portion 18 adjacent the slit 14 as shown in Figure 6, so as to facilitate initial entry of the tab element 3 into the pocket 11. Also, the pocket 11 can be open ended to ensure that the tab element 3 is firmly located therein.

With a construction as described, the elongated tab element 3 is caused to adopt a position such that the associated body section 2 of the disposable protector member is properly located on the seat headrest. Attachment and removal of the disposable member is extremely simple, and rigid elements are not required to be permanently secured to the main slip or dust cover of the seat.

The construction described is an illustrative embodiment only, and may be varied considerably whilst still retaining the basic concept of the invention. For example, a plurality of tab elements 3 may be secured to the body section 2 of the protector member according to the size and intended use of the protector member. In one form as shown in Figure 7, a tab 3 is located adjacent each end of the upper edge 4 of the body section 2, and those tabs may extend in substantially parallel, converging or diverging, directions. Alternatively, the two

tab elements 3 may extend in substantially opposite directions from respective side edges 5 of the body section 2 as shown in Figure 8, and in that arrangement they are arranged to engage in pockets 11 in the top surface 7 of the backrest 8, but the pockets could be on the side edge surfaces or the rear surface of the seat backrest 8 as desired.

In a further modification as shown in Figure 9, the or each tab element 3 secured to the upper edge 4 of the body section 2, cooperates with a pocket 11 located on the back surface 9 of the seat backrest 8. It will be obvious that one or more tab elements 3 may be provided at each of the upper edge 4 and side edges 5 of the body section 2, and furthermore the or each tab element 3 may be connected to that body section 2 through a flap, band or tape 19 as shown in Figure 10, which may be elastic in nature to permit stretching during the attaching and removal operations.

The tab element 3 may have any desired shape, although the shape previously described is generally preferred, especially if only one element is being used. The side edges 16 of the tab element 3 may be curved as shown in Figure 11 instead of being straight as described, or such curved edges 16 may be concave as shown in Figure 12. Also, the curved edges 16 are arranged so that the width of the tab element 3 decreases away from the body section 2. Obviously, it is preferable for the or each cooperating pocket 11 to have a side peripheral shape substantially complementary to that of its respective tab element 3, but it may have a greater depth so that the side edges 16 of the tab 3 engage the edges 12 of the pocket 11 before the tab 3 bottoms within the pocket 11.

Irrespective of the peripheral shape of the tab element 3, it need not be elongated as described, but again that is preferred for stability.

It will be further apparent that the or each tab receiving pocket 11 can be formed in any suitable manner other than as previously described. One way as shown in Figures 13 and 14, is to form a tuck or fold in the main cover of the seat, and stitch along two laterally spaced lines 21 extending away from the mouth 22 of the tuck or fold to define the side edges 12 of the pocket 11. The mouth 22 of the tuck or fold may be closed by stitching 23 or adhesive laterally of the pocket 11 so formed. In another arrangement as shown in Figure 15, the pocket 11 is formed by a pouch or sleeve element 24 secured to the main cover along one of its edges 25 defining the mouth 26 of the pocket 11. If the pouch or sleeve element 24 is secured to the under surface of the main cover as shown, a slit 27 is formed in the main cover adjacent the pocket mouth 130

26 to allow access to the pocket 11.

Figure 16 shows yet another pocket arrangement in which the pocket 11 is defined between the sheet 28 forming the front surface of the seat backrest 8, and a patch 29 secured to the sheet 28. The mouth of the pocket 11 is defined by a slit or opening 31 edged with conventional buttonhole stitching 32, and the sides and closed end of the pocket 11 are defined by stitching 33 which may also secure the patch 29 to the sheet 28. Alternatively, the patch 29 may be secured to the seat covering by adhesive or stitching around its peripheral edge portions. The extreme ends 34 and 35 of the line of stitching 33 preferably lie within the lateral boundaries of the slit or opening 31 so as to avoid shoulders or overhangs that may catch with the tab element 3 during withdrawal of that element from the pocket 11.

WHAT WE CLAIM IS:—

1. A protector member for releasable attachment to the back or headrest of a seat and including a body section formed of a flexible sheet material, a tab element non-releasably connected to an edge of said body section and arranged for insertion into a pocket or recess provided on or within said back or headrest, whereby said protector member is attachable to said seat, said tab element being formed of a sheet material which is rigid relative to the sheet material of said body section, and two opposite side edges of said tab element converging over at least part of their length in a direction away from the connection between said tab element and said body section, so that said tab element has its greatest width adjacent said connection.

2. A protector member according to claim 1, wherein said tab element is secured to a flap extending from said edge of the body section and formed integral therewith, and said tab element is elongated in a direction substantially normal to said edge of the body section.

3. A member according to claim 1 or 2, wherein said converging side edge portions are substantially straight and merge with a curved or arcuate terminal end portion of said tab element.

4. A member according to claim 1 or 2, wherein said converging side edge portions are arcuate.

5. A protector member according to any preceding claim in combination with a seat, wherein said pocket is formed in the covering of said seat and is positioned on the top edge surface of the seat backrest, said

pocket opening rearwardly and having side edges substantially complementary to said side edges of the tab element to retain the tab element against substantial lateral movement relative to said seat, and said protector member is folded at said edge of the body section so that said body section overlies said pocket and said element contained therein.

6. A combination according to claim 5, wherein said tab element is cooperable with said pocket or recess so as to retain the protector member substantially in a predetermined position relative to said seat.

7. A protector member according to any one of claims 1-4 wherein a second said tab element is secured to said body section, the two said tab elements being located adjacent respective opposite side edges to said body section.

8. A protector member according to claim 7, wherein the two said tab elements are connected to the same edge of said body section.

9. A protector member according to claim 7, wherein the two said tab elements are secured to respective opposite side edges of the body section so as to extend in substantially opposite directions.

10. A protector member according to any one of claims 1 to 4, wherein said body section is symmetrically disposed about a continuation of the longitudinal axis of said tab element.

11. A combination including a seat dust cover and a protector member according to any one of claims 1 to 4, said dust cover having a pocket formed therein to slidably receive said tab element, said pocket being positioned on the top edge surface of the backrest portion of the dust cover and opening rearwardly, and opposed side edges of said pocket are arranged relative to each other to cooperate with side edges of said tab element to retain that element against substantial lateral movement relative to said dust cover.

12. A combination according to claim 11, wherein said side edges of the pocket converge away from the open mouth of the pocket.

13. A combination according to claim 11 or 12, wherein said pocket includes a patch element stitched to the under surface of said cover, said stitching defining said side edges of the pocket, and the open mouth of the pocket is formed by a slit in said dust cover.



26 to allow access to the pocket 11.

Figure 16 shows yet another pocket arrangement in which the pocket 11 is defined between the sheet 28 forming the front surface of the seat backrest 8, and a patch 29 secured to the sheet 28. The mouth of the pocket 11 is defined by a slit or opening 31 edged with conventional buttonhole stitching 32, and the sides and closed end of the pocket 11 are defined by stitching 33 which may also secure the patch 29 to the sheet 28. Alternatively, the patch 29 may be secured to the seat covering by adhesive or stitching around its peripheral edge portions. The extreme ends 34 and 35 of the line of stitching 33 preferably lie within the lateral boundaries of the slit or opening 31 so as to avoid shoulders or overhangs that may catch with the tab element 3 during withdrawal of that element from the pocket 11.

WHAT WE CLAIM IS:—

1. A protector member for releasable attachment to the back or headrest of a seat and including a body section formed of a flexible sheet material, a tab element non-releasably connected to an edge of said body section and arranged for insertion into a pocket or recess provided on or within said back or headrest, whereby said protector member is attachable to said seat, said tab element being formed of a sheet material which is rigid relative to the sheet material of said body section, and two opposite side edges of said tab element converging over at least part of their length in a direction away from the connection between said tab element and said body section, so that said tab element has its greatest width adjacent said connection.

2. A protector member according to claim 1, wherein said tab element is secured to a flap extending from said edge of the body section and formed integral therewith, and said tab element is elongated in a direction substantially normal to said edge of the body section.

3. A member according to claim 1 or 2, wherein said converging side edge portions are substantially straight and merge with a curved or arcuate terminal end portion of said tab element.

4. A member according to claim 1 or 2, wherein said converging side edge portions are arcuate.

5. A protector member according to any preceding claim in combination with a seat, wherein said pocket is formed in the covering of said seat and is positioned on the top edge surface of the seat backrest, said

pocket opening rearwardly and having side edges substantially complementary to said side edges of the tab element to retain the tab element against substantial lateral movement relative to said seat, and said protector member is folded at said edge of the body section so that said body section overlies said pocket and said element contained therein.

6. A combination according to claim 5, wherein said tab element is cooperable with said pocket or recess so as to retain the protector member substantially in a predetermined position relative to said seat.

7. A protector member according to any one of claims 1-4 wherein a second said tab element is secured to said body section, the two said tab elements being located adjacent respective opposite side edges to said body section.

8. A protector member according to claim 7, wherein the two said tab elements are connected to the same edge of said body section.

9. A protector member according to claim 7, wherein the two said tab elements are secured to respective opposite side edges of the body section so as to extend in substantially opposite directions.

10. A protector member according to any one of claims 1 to 4, wherein said body section is symmetrically disposed about a continuation of the longitudinal axis of said tab element.

11. A combination including a seat dust cover and a protector member according to any one of claims 1 to 4, said dust cover having a pocket formed therein to slidably receive said tab element, said pocket being positioned on the top edge surface of the backrest portion of the dust cover and opening rearwardly, and opposed side edges of said pocket are arranged relative to each other to cooperate with side edges of said tab element to retain that element against substantial lateral movement relative to said dust cover.

12. A combination according to claim 11, wherein said side edges of the pocket converge away from the open mouth of the pocket.

13. A combination according to claim 11 or 12, wherein said pocket includes a patch element stitched to the under surface of said cover, said stitching defining said side edges of the pocket, and the open mouth of the pocket is formed by a slit in said dust cover.

14. A combination according to claim 11 or 12, wherein said pocket is defined by a tuck in said dust cover, the adjacent layers of said tuck being stitched together to define the said edges of said pocket, and the mouth of the tuck is held closed laterally of the open mouth to said pocket.

15. A protector member substantially as herein described with reference to the accompanying drawings.

16. A dust cover and protector member

combination substantially as herein described with reference to the accompanying 15 drawings.

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