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(56) Documents cited
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(54) A carpet fastener

(57) A carpet fastener is provided. The fastener includes first and second substantially flat retention members (1, 4) to sandwich a first piece of carpeting (12) therebetween, a third retention member (6) to sandwich a second piece of carpeting (11) between itself and the second retention member (4), a first and a second spacer (3, 8) to extend through apertures (13, 14) in the first and second pieces of carpeting (12, 11) respectively, the first spacer (3) to separate the first and second members (1, 4), and the second spacer (8) to separate the second and third members (4, 6) respectively to prevent the members (1, 4, 6) crushing the carpeting (12, 11), and releasable means (1, 3, 5) connecting the members (1, 4, 6) and spacers (3, 8) together whereby to secure together the first and second pieces of carpeting (12, 11).

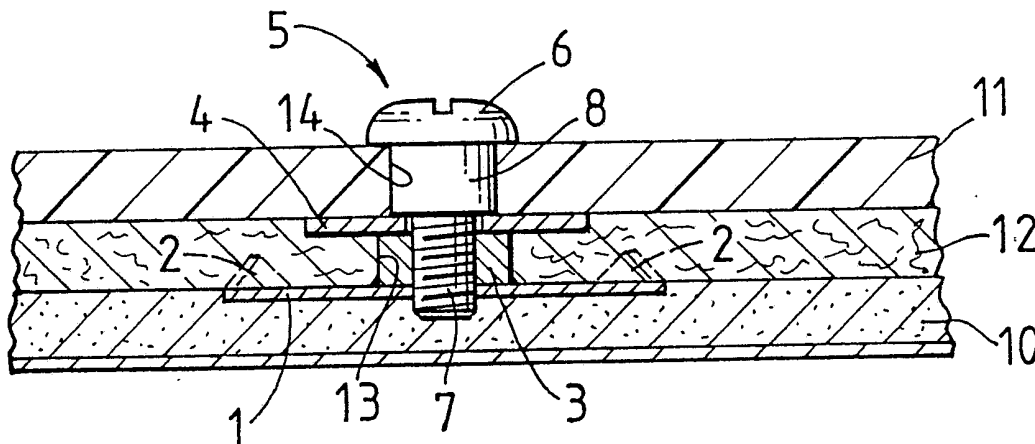
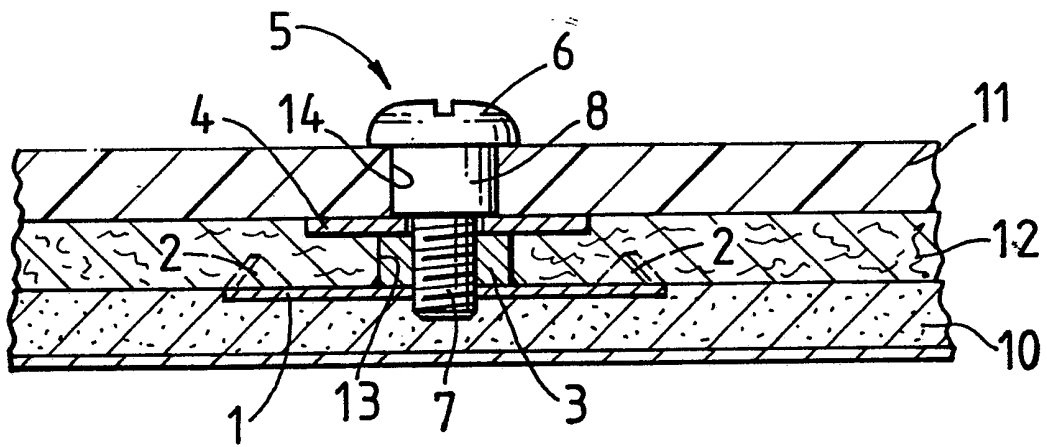
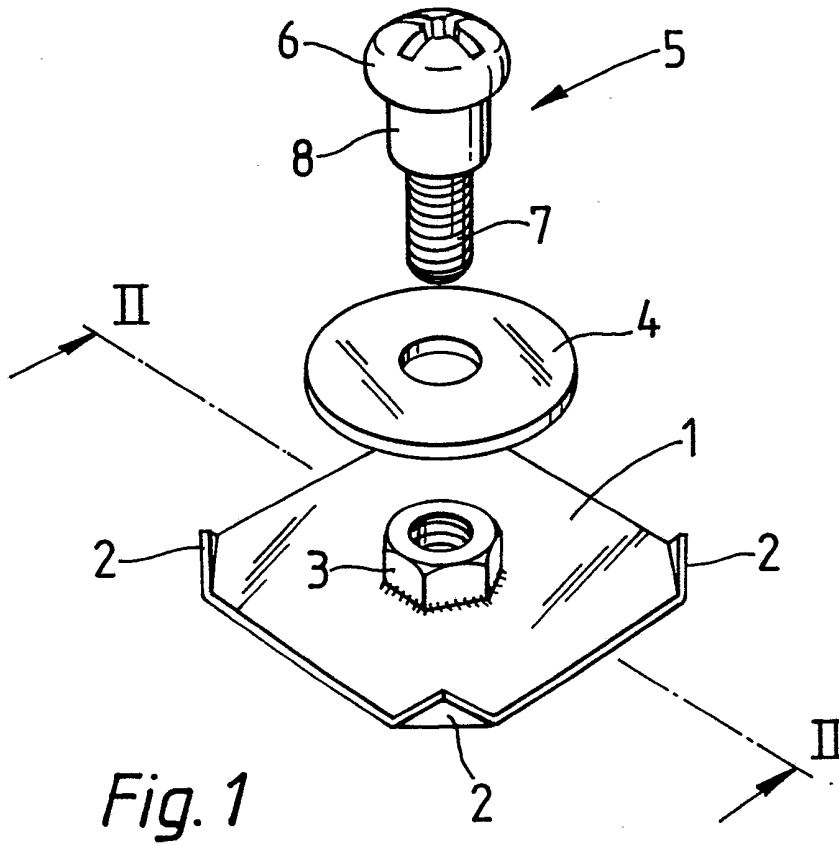


Fig. 2

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The present invention relates to carpet fasteners, and in particular to a carpet fastener to retain a loose mat or the like to a piece of fitted carpeting or underlay in a motor vehicle.

The dangers of providing loose mats for use in motor vehicles are well known. When such a loose mat is placed near to the control pedals of the vehicle without being secured in position the danger arises that the mat will slip and may get lodged under, or tangled with, the pedals, potentially causing loss of control of the vehicle.

It is known to secure a loose mat to a fitted carpet by a press-stud wherein a male portion of the stud is usually permanently fitted to the fitted carpet and a female portion of the stud is then permanently fitted to the mat to be retained.

A disadvantage of this fastening method is that the carpet and the loose mat must each be permanently fitted with a portion of the press-stud which is a costly and time consuming operation. Furthermore, if no loose mat is fitted or the mat is removed the male portion of the stud will protrude from the carpet. This is unsightly, and could cause a dangerous obstruction for a drivers feet, for example, when operating control pedals of the vehicle.

It is an object of the invention to overcome the above disadvantages.

According to the present invention there is provided a carpet fastener including first and second substantially flat retention members to sandwich a first piece of carpeting therebetween, a third retention member to sandwich a second piece of carpeting between itself and the second retention member, a first and a second spacer to extend through apertures in the first and second pieces of carpeting respectively, the first spacer to separate the first and second members, and the second spacer to separate the second and third members respectively to prevent the members crushing the carpeting, and releasable means connecting together the members and spacers whereby to secure together the first and second pieces of carpeting.

An advantage of the invention is that the fastener is not permanently secured to any part of a vehicle body, nor to the carpeting to be fastened together, thus providing a versatile fastening means for carpeting which may be completely removed when not required. A further advantage is that because the fastener passes through the carpeting being fastened there is no possibility of relative slippage

taking place between the pieces of carpeting when secured by the fastener.

The first spacer may be a nut permanently secured to the first member to form a first part of the connecting means.

A bolt may form a second part of the connecting means, and the bolt may have a head forming the third retention member, a raised land adjacent the head forming the second spacer and a free end engageable with the nut to connect the members and spacers together.

The thickness of each said spacer will desirably be substantially that of a piece of carpeting through which the spacer is to extend. By this means the retention members sandwiching that piece of carpeting will be allowed to lightly compress same so that a grip is produced which is sufficiently firm to avoid relative carpet movement with the accompanying risk of carpet tearing, but is of insufficient strength to crush or damage the piece of carpeting.

The first retention member may be a substantially flat plate having at least one corner thereof turned up to form at least one projection to penetrate a piece of carpeting when in use.

In its simplest form the second retention member may be a washer.

A variation in the connecting means may include twist and hold means having a male and a female element co operable with each other.

As a further alternative the connecting means may include male means resiliently expandable into locking engagement inside cooperable female means.

For applications of the fastener where more strength is required, at least part thereof may be of metal. For applications where less strength is required or where lightness is at a premium, the fastener may be at least partly of plastics material.

The invention will now be more particularly described with reference to a preferred example thereof as illustrated in the accompanying drawing of which:-

Figure 1 is an exploded view of a fastener according to the invention, and

Figure 2 is a vertical section of the fastener of figure 1, when fitted to carpeting, taken along the line II - II of Figure 1.

The fastener has a first retention member in the form of a flat plate 1 having projections formed by turning up the four corners 2 of the plate 1.

A first spacer in the form of a threaded nut 3 is welded to the plate 1 to form a first part of connecting means.

A washer 4 forms a second retention member. A threaded bolt 5 comprises a second part of the connecting means and has a head 6 acting as a third retention member, a land 8 acting as a second spacer, and a threaded shank 7 co operable with the nut 3 to connect the members and spacers together.

In Figure 2 the fastener is shown in use. The fastener rests on a layer of underlay 10 and passes through an aperture 14 in a loose mat 11 and an aperture 13 in a layer of carpet 12 to secure the mat 11 to the layer of carpet 12. The mat 11 is firmly secured to the carpet 12 without either being crushed by the fastener, owing to the presence of the spacers 3, 8 between the retention members

1, 4 and 6. If it is later desired to separate the mat 11 and carpet 12, the fastener may be unfastened and removed completely from both the mat 11 and the carpet 12, and may be re-used elsewhere.

CLAIMS

1. A carpet fastener including first and second substantially flat retention members to sandwich a first piece of carpeting therebetween, a third retention member to sandwich a second piece of carpeting between itself and the second retention member, a first and a second spacer to extend through apertures in the first and second pieces of carpeting respectively, the first spacer to separate the first and second members, and the second spacer to separate the second and third members respectively to prevent the members crushing the carpeting, and releasable means connecting together the members and spacers whereby to secure together the first and second pieces of carpeting.

2. A fastener according to claim 1, wherein the first spacer is a nut permanently secured to the first member to form a first part of the connecting means.

3. A fastener according to claim 2, wherein a bolt forms a second part of the connecting means, the bolt having a head forming the third retention member, a raised land adjacent the head forming the second spacer and a free end engageable with the nut to connect the members and spacers together.
4. A fastener according to any one of the preceding claims, wherein the first retention member is a substantially flat plate having at least one corner thereof turned up to form at least one projection to penetrate a piece of carpeting when in use.
5. A fastener according to any one of the preceding claims, wherein the thickness of each said spacer is substantially that of a piece of carpeting through which the spacer is to extend.
6. A fastener substantially as herein described with reference to the accompanying drawing.