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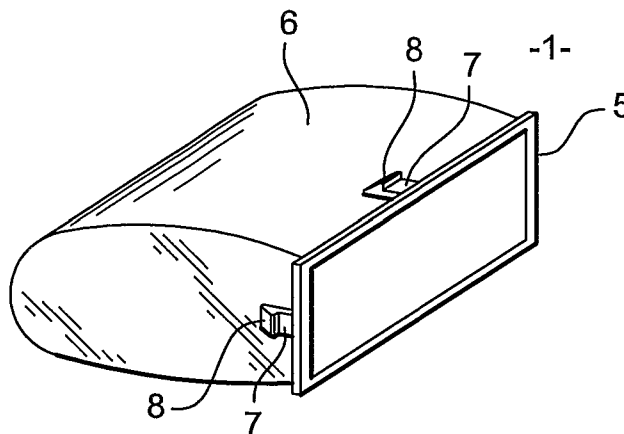
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(54) Title: STORAGE ARRANGEMENT FOR A VEHICLE DASHBOARD

Fig. 1



(57) Abstract: The storage arrangement for a vehicle dashboard (2) that includes at least one opening (4) the storage arrangement includes a frame (5) having a shape matching the shape of the opening (4) said frame (5) being connectable onto the part of the dashboard (2) surrounding an opening (4) in a vehicle dashboard and (ii) a pouch (6) made of a soft material.

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Storage arrangement for a vehicle dashboard

Field of the invention

5 The present invention concerns a storage compartment intended to be fitted in a vehicle dashboard.

Technological background

10 A personal or an industrial vehicle has a cabin which can accommodate a driver and a passenger. The cabin is provided with a dashboard that is located at the front end of the cabin.

 The typical layout of a vehicle dashboard contains a number of mandatory equipment such as an instrument cluster (speedometer, tachometer), climate control buttons etc. and a number of optional equipment
15 such as an audio equipment, a navigation system etc.

 Vehicles are mass produced and, to comply with standardization, the dashboard is usually a single piece usually made of plastic material that is provided with a number of compartments that can accommodate all the
20 possible equipment, whether mandatory or optional.

 Therefore, a vehicle that is configured according to the specific requirement of a client may have a dashboard provided with empty compartments. These empty compartments can be closed by cover plates or can be fitted with storage boxes. These storage boxes are usually of parallelepipedic shape and are inserted into the empty compartments that are
25 of no use on the dashboard, considering a vehicle dashboard specific configuration.

 The dashboard, which usually incorporates a central console, hides a number of vehicular components such as the blowing machinery of the
30 climate control, electric cables, steering column, etc. These components are of irregular shape and therefore important void zones can be found behind a dashboard and the attached console.

Summary of the invention

Therefore, an object of the invention is to make a better use of the lost space that can be found behind a vehicle dashboard.

5 The invention concerns a storage arrangement for a vehicle dashboard that includes at least one opening characterized in that the said storage arrangement includes (i) a frame having a shape matching the shape of the opening said frame being connectable onto the part of the dashboard surrounding the opening and (ii) a pouch made of a soft material.

10 Thus, the invention provides a storage arrangement that can make an optimum use of the free space that can be found behind the dashboard. In addition to incorporating vehicle instrument, one of the functions of a vehicle dashboard is to hide technical equipment that has to be within the vehicle cabin but that has to be hidden from the driver and passenger's view. Such
15 equipment, typically the blowing machinery of the vehicle climate control system, may be of irregular shape. The space that can be found behind a vehicle dashboard is therefore of awkward shape. In the environment, the storage arrangement proves to be extremely useful as the pouch part which is made of a soft material can fit into any free space behind a dashboard,
20 whatever the geometry of the free space might be. A first advantage of the invention is therefore to provide a better use of a space of irregular geometry behind the dashboard. A further advantage of the invention is to provide a storage arrangement that can be fitted on vehicles of different types that have different layouts underneath their respective dashboards. In other words, the
25 storage arrangement according to the invention can be used to close empty compartments on different dashboards as the storage arrangement includes a pouch that can fit into any free space. Thus the storage arrangement of the invention is not designed for a specific vehicle but can be fitted on a wide range of vehicles.

30 In an advantageous embodiment of the invention, the pouch can have a cross section exceeding the dimension of the frame.

 This embodiment makes it possible to make an optimum use of the space behind the dashboard as the pouch can offer a storage space bigger than the storage space of a rigid storage box that must be inserted through the
35 opening and which volume is dictated by the dimensions of the opening.

To secure the storage arrangement, the frame can include at least one means for connecting onto the part of the dashboard that surrounds the opening.

In concrete words, the frame can suitably be equipped with a series
5 of flexible tabs having a retaining end that can lock the frame onto the dashboard.

Thus the storage arrangement can be easily fitted into the dashboard and can easily be removed from the dashboard, for example, to put in, for example, an audio equipment.

10

Brief description of the drawings

Fig. 1 shows an embodiment of a storage arrangement according to the invention;

15

Fig. 2 illustrates a vehicle dashboard fitted with the storage arrangement according to the invention.

Description of the invention

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Figure 2 illustrates a typical cabin of a vehicle that includes in particular a dashboard 2 and a steering wheel.

The dashboard 2 incorporates an instrument cluster 3 where all the information regarding the vehicle can be displayed to the driver.

The dashboard 2 can also be provided with one or more openings 4
25 that can accommodate for example an audio and/or navigation system. The dimensions of the opening 4 are usually defined by an ISO standard used by all vehicle manufacturers. The opening 4 gives access to a free space behind the dashboard surface.

When the opening 4 is not used to accommodate an audio
30 equipment, a cover plate or a storage box closes the opening 4 as it is not desirable for aesthetic and safety reasons to leave an opening 4 in a dashboard 2 that leads to the technical equipment that is behind the dashboard 2.

The storage arrangement 1 according to the invention is essentially
35 made of two components, namely a frame 5 and a pouch 6.

The frame 5 is, in the illustrated example, of rectangular shape to fit the rectangular shape of the opening 4. The frame 5 can be a plastic moulded component. The frame 5 is preferably rigid or semi-rigid and can suitably be provided with means for connecting with the part of the dashboard 2 that surrounds the opening 4. The connecting means can, for example, include several flexible lugs 7 each provided with a retaining end 8. The connecting means could also comprise releasable fasteners, such as screws, or non releasable fasteners, such as rivets. The frame could also be connected to the dashboard by gluing or welding.

The pouch 6 can be made of soft material, such as fabrics, flexible plastic sheet materials, leather or synthetic leather, etc.... The pouch 6 itself can be made of a single piece of material or can be made of several pieces of material stitched, glued or welded together.

The pouch 6 can be attached to the frame 5 by gluing or welding, but could also fitted to the frame by releasable or no releasable fasteners, including clips and staples, or could be attached to the frame by a gripping arrangement. In the case where at least one of the pouch or the frame is injection moulded, the attachment of the frame to the pouch can be provided directly by over-moulding.

On a dashboard 2 where the opening 4 is not required to accommodate any equipment, the storage arrangement is inserted into the opening 4 and the frame 5 is clipped onto the part of the dashboard 2 by the flexible lugs 7. It is understood that other connecting means can be used to secure the storage arrangement onto the dashboard 2.

According to alternate embodiments of the invention, not represented, the frame of the storage arrangement can be comprised with a part of the dashboard, for exemple a frontal part of the dashboards acting as visual decorative panel. It is possible to provide that the pouch is directly attached to a structural part of the dashboard, and that the frame is merely a decorative panel hiding that attachment and delimiting the opening to the storage arrangement.

In an advantageous embodiment of the invention the pouch 6 has a cross section that exceeds the dimensions of the frame 5. This embodiment makes it possible to increase the storage volume as the pouch 6 can expand into the space that is behind the dashboard.

The storage arrangement 1 can also be used to close, for example, a space that is left by a gear stick in the case of a vehicle having a robotised gear box and therefore can be exempt from a gear stick.

5 The invention proves to be a significant improvement over the closing means that are currently used to close the openings that are left unused on a vehicle dashboard 2.

The invention is not limited to the illustrative embodiment described above and shown in the drawing, but can be varied within the scope of the following claims.

CLAIMS

1. A storage arrangement for a vehicle dashboard (2) that includes
5 at least one opening (4) characterized in that the said storage arrangement includes (i) a frame (5) having a shape matching the shape of the opening (4) said frame (5) being connectable onto the part of the dashboard (2) surrounding the opening (4) and (ii) a pouch (6) made of a soft material.
- 10 2. The storage arrangement according to claim 1, characterized in that the pouch (6) has a cross section exceeding the dimension of the frame (5).
- 15 3. The storage arrangement according the claim 1 or claim 2, characterized in that the frame (5) includes at least one means for connecting onto the part of the dashboard (2) that surrounds the opening (4).
- 20 4. The storage arrangement according to claim 3, characterized in that the frame (5) is equipped with a series of flexible tabs having a retaining end that can lock the frame onto the dashboard.

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Fig. 1

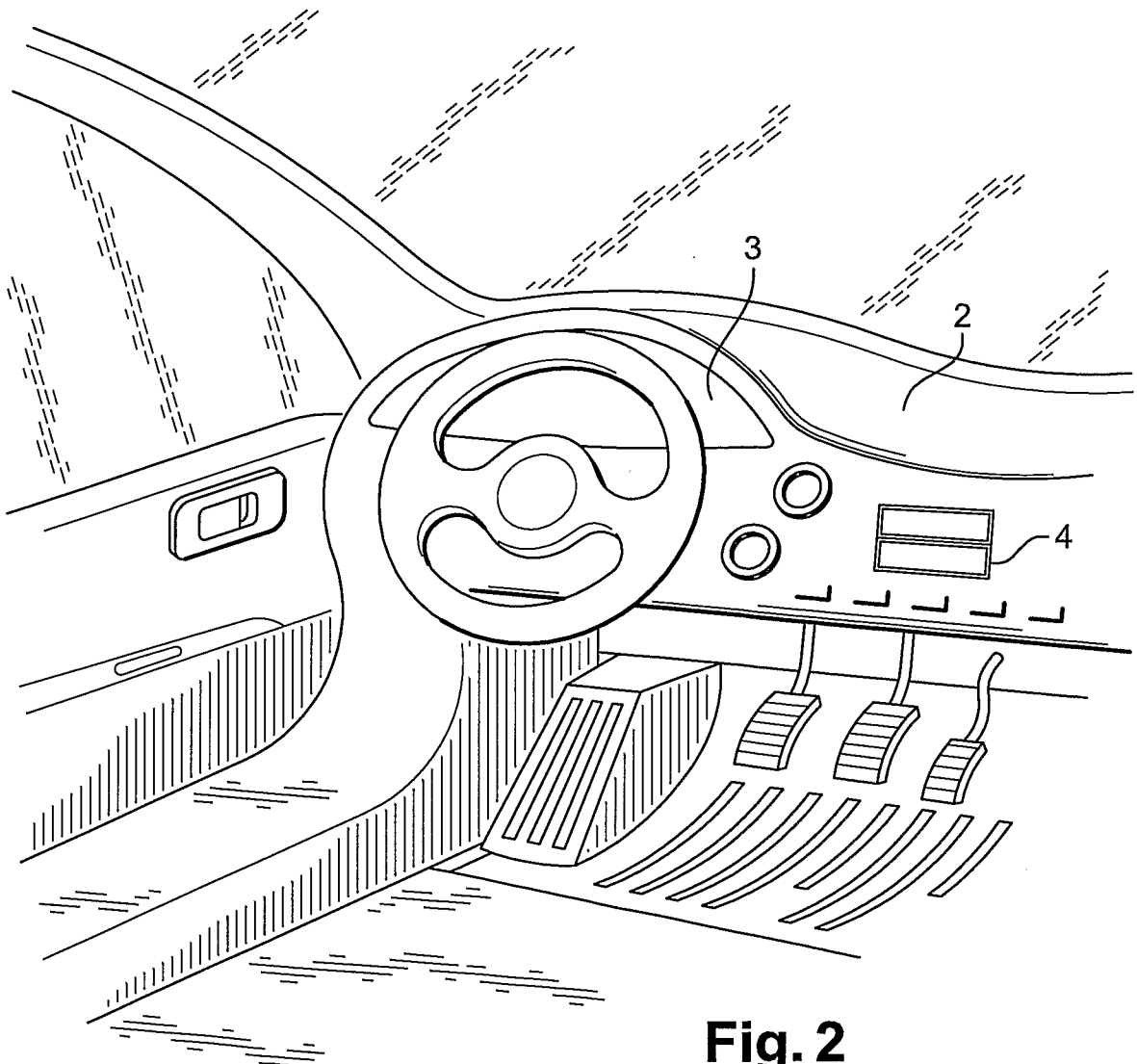
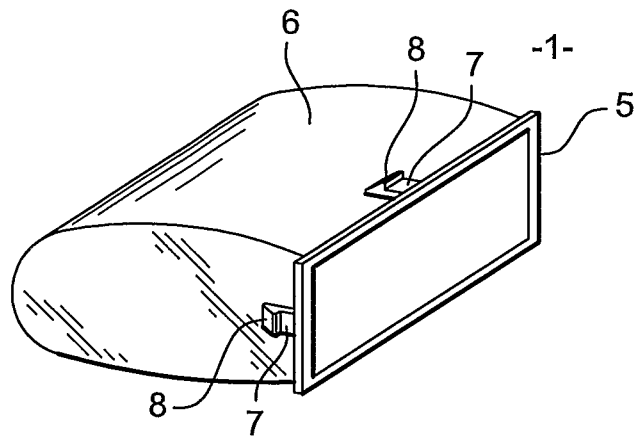


Fig. 2

INTERNATIONAL SEARCH REPORT

International application No

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B60R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 961 469 A (WILMOT BREEDEN LTD) 24 June 1964 (1964-06-24) page 2, line 15 - line 24; figures 3,4	1-4
X	WO 96/18525 A (REYDEL SA [FR]; CHOQUET ALAIN [FR]) 20 June 1996 (1996-06-20) page 4, line 28 - page 6, line 11; figures 1-3	1-4
A	DE 297 21 096 U1 (SARNATECH PAULMANN & CRONE GMB [DE]) 5 February 1998 (1998-02-05) the whole document	1-4

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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