The invention relates to a removable storage panel, and in particular to a removable storage panel for use in a vehicle such as a van. The removable storage panel has a base 12 and a number of pockets 14, the base having releasable securing means 16 by which the panel may be temporarily secured to a sidewall of the vehicle. The releasable securing means may comprise magnets or hook and loop fasteners, and the base and pockets may be flexible or substantially rigid. The base may comprise a liner of sheet cardboard and a sheet of canvas to which canvas pockets can be stitched. The storage panel may have dimensions chosen to fit a particular vehicle, and can be used in carrying tradesman’s tools and large and small items of hardware.
REMOVABLE STORAGE PANEL

FIELD OF THE INVENTION

This invention relates to a removable storage panel, and in particular to a removable storage panel for use in a vehicle such as a van.

BACKGROUND OF THE INVENTION

Tradesmen such as builders, plumbers, painters and carpenters will often use a vehicle to drive to a site at which they are working. The vehicle is typically a van which is large enough to accommodate most or all of the equipment which the tradesman requires.

The equipment will vary between different tradesmen, but may for example include large and small tools, large and small items of hardware such as fasteners or fixings, and articles (for example timber) which will be used at the site.

The tradesman will often have one or more storage boxes for the smaller items of equipment so that those items do not become lost, but will often store the larger items of equipment upon the floor of the van.

Because the amount of equipment can be large and varied, it is not uncommon for an item of equipment to become buried under other equipment. Retrieving the item when required therefore incurs additional time, and it may be that the item cannot be located. Also, in order to reduce the amount of equipment within the van a tradesman may only take the equipment which he expects to need on that particular day. If it turns out that he needs more or different equipment an additional round trip is required to collect the required item from storage.

Furthermore, if a tool becomes damaged during use the tradesman may not have a spare tool in his van, and may not carry the components necessary for a repair,
so once again an additional round trip is required to collect a replacement tool or component.

To avoid these problems a tradesman could use a larger van. However, a larger van increases the tradesman’s costs, and therefore increases the charges he must levy upon his customers. Many tradesmen are unwilling and perhaps unable to incur this additional cost.

Alternatively or additionally, it is known for a tradesman to assemble storage racking and the like in the van, so that more equipment can be stored and taken to the site. However, locating storage racking in a van reduces the free volume of the van, which free volume might occasionally be required for the transportation of larger items such as timber panels for example. Also, the racking is typically secured to the body of the van, usually requiring holes to be made in the body of the van, so that these modifications are permanent and will likely reduce the value of the van when it is to be resold.

SUMMARY OF THE INVENTION

The inventor has appreciated the problem of the desire for additional storage space within a tradesman’s van, and the problem of permanent modifications which might reduce the resale value of the van. The inventor has sought to provide a removable storage panel which avoids or reduces those problems.

According to the invention there is provided a removable storage panel for locating within a tradesman’s van, the panel having releasable securing means by which the panel may be temporarily secured to a sidewall of the van, and a number of pockets.

By securing the panel to the sidewall of the van the inventor takes advantage of space which is present in the van but seldom fully utilised.
The releasable securing means is preferably a set of magnets. Such embodiments take advantage of the fact that the skin of the van, including the walls thereof, is typically steel to which a magnet can be secured. It would be possible to use alternative securing means such as an adhesive; however, such securing means would not likely be releasable and even if the panel could be removed any remaining adhesive residue might reduce the resale value of the van. Also, one element of a hook and loop fastener such as Velcro\textsuperscript{RTM} could be secured to the wall of the van and the other element secured to the panel.

Ideally the base of the panel is substantially rigid, so that the position of the pockets relative to one another, and the position of the releasable securing means relative to the pockets, are substantially fixed. A substantially rigid base is preferred because it can be self-supporting when removed from the van. Thus, it may be desirable to remove the panel from the van and transport it to another site such as a warehouse where more of the tradesman’s equipment is stored. Some or all of the pockets of the panel can be emptied and refilled with other equipment as desired in the warehouse, rather than requiring the tradesman to make repeated trips to and from the van.

Alternatively, the base of the panel is flexible, for example canvas or the like, which could possibly be rolled up for transporting to and from the van.

The pockets can be substantially rigid, for example substantially rigid-sided trays which are fixed to chosen parts of the panel. Alternatively the pockets can be flexible, perhaps elasticated. Alternatively, the pockets can be substantially flexible but with strengthening means to retain the shape of the pockets; the strengthening means can be permanent (e.g. stitched into a fabric material) or removable if desired.

In one embodiment the panel is of canvas or similar material, and the pockets are also of canvas or similar material stitched or otherwise secured in chosen positions thereupon. The panel may be made substantially rigid by a liner of cardboard or the like.
It is known for vans to have a metal skin covering a framework of structural beams. Preferably the panel is adapted to be secured to the metal skin, but it could instead be adapted to be secured to one or more of the beams. The panel can be made to fit a particular van, i.e. the panel can be dimensioned to fit between adjacent beams of the van. Alternatively, the panel can be made sufficiently flexible to pass over one or more of the beams and be secured to the skin either side of the beam(s).

BRIEF DESCRIPTION OF THE PREFERRED EMBODIMENTS

The invention will now be described in more detail, by way of example, with reference to the accompanying drawing, which shows a perspective view of a removable storage panel according to the present invention.

DETAILED DESCRIPTION

The removable storage panel 10 comprises a substantially rigid base 12 and a number of (in this embodiment eight) pockets 14.

The base 12 carries a number of (in this embodiment twelve) magnets 16, which can temporarily and releasably secure the panel to the steel skin of a tradesman’s van (not shown).

In this embodiment the base 12 is made of canvas which is permanently secured to a liner (not shown) of cardboard which provides the structural rigidity of the panel. Alternative embodiments have a liner of another substantially rigid material.

The pockets 14 are all formed by separate pieces of canvas material 14 individually stitched to the base 12. In an alternative design at least some of the
pockets are formed by a single piece of material with intermediate stitching to form separate pockets. In another alternative embodiment the pockets are substantially rigid, the rigidity arising either because of the material from which the pockets are made or because of strengthening means for each pocket. Pockets which are substantially rigid will typically project further from the base than the pockets of the embodiment shown, and will provide more defined receptacles.

The pockets 14 are stitched to the base 12 along their bottom edges and their two side edges. The top of each pocket is open so that the pocket is accessible for the insertion and removal of a chosen piece of equipment. The pockets 14 are stitched to the base 12 in such a way that the top of each pocket is bowed outwardly from the base 12 to permit easier access.

In other embodiments the top of each pocket is elasticated, and in yet other embodiments includes a fastener such as a zip or a piece of hook and loop fastener.

The pockets may be of mesh material so that the contents of each pocket are more or less visible.

It is not necessary that all of the pockets be of the same size and shape, and a panel may incorporate a number of pockets of varying shapes and/or sizes, suited to the storage of different items.

It will be understood that the number, size and type of the magnets 16 is chosen to retain the panel 10 upon the steel skin of a van when the panel is loaded with equipment. Ideally the magnets will both prevent the panel from peeling away from the skin and will also prevent the panel sliding down the skin. Alternatively, however, the magnets are not sufficiently strong to prevent the panel 10 from sliding down the skin of the van, and instead the bottom edge of the panel 10 is supported by the floor of the van, or some other fixture.
The dimensions of the panel 10 may be suited to a particular van, for example the height may be slightly less than the height of the sidewall of the van and the width may be slightly less than the distance between adjacent structural beams of the van. Also, the panel may be curved to match the curvature of the sidewall of the van. Alternatively, one or more “standard” panels can be made. The or each standard panel may be made sufficiently small that it is able to locate on the sidewall of a large number of vans, between adjacent structural beams, and it can be curved to match the curvature of most of the vans. Alternatively, the base 12 can be made sufficiently flexible so that it can bend to conform to the curvature of the sidewall, and can also bend around one or more structural beams and be secured to the skin at either side of the structural beam(s).
CLAIMS

1. A removable storage panel for locating within a vehicle, the panel having a base and a number of pockets, the base having releasable securing means by which the panel may be temporarily secured to a sidewall of the vehicle.

2. A removable storage panel according to claim 1 in which the releasable securing means is a set of magnets.

3. A removable storage panel according to claim 1 or claim 2 in which the base is substantially rigid.

4. A removable storage panel according to claim 1 or claim 2 in which the base is flexible.

5. A removable storage panel according to any preceding claim in which the pockets are substantially rigid.

6. A removable storage panel according to claim 5 in which the pockets are substantially rigid-sided trays fixed to chosen parts of the base.

7. A removable storage panel according to claim 5 in which the pockets incorporate strengthening means to retain the shape of the pockets.

8. A removable storage panel according to claim 7 in which the strengthening means is permanently incorporated into the pocket.

9. A removable storage panel according to claim 7 in which the strengthening means is removable from the pocket.

10. A removable storage panel according to any one of claims 1-4 in which the pockets are flexible.
11. A removable storage panel according to claim 10 in which the pockets are elasticated.

12. A removable storage panel according to claim 10 or claim 11 in which the base is of canvas material, and the pockets are also of canvas material secured in chosen positions upon the base.

13. A removable storage panel according to claim 12 in which the pockets are stitched onto the base.

14. A removable storage panel according to claim 3 in which the base is made substantially rigid by a liner.

15. A removable storage panel according to claim 14 in which the liner is a sheet of cardboard.

16. A removable storage panel according to any preceding claim in which the dimensions of the base are chosen to fit a particular vehicle.

17. A removable storage panel constructed and arranged substantially as described in relation to the accompanying drawing.
Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

<table>
<thead>
<tr>
<th>Category</th>
<th>Relevant to claims</th>
<th>Identity of document and passage or figure of particular relevance</th>
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<tr>
<td>X</td>
<td>1,3,4,10-13,16</td>
<td>US 2007/0119890 A1 (COOK) See the whole document, in particular the reference to a rigid device in paragraph 29.</td>
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<td>X</td>
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<td>US 6267277 B1 (TAYLOR) See the whole document, in particular magnets 28, 30 and stitched pockets 34-44.</td>
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<td>US 5460305 A (AHEARN) See the whole document, in particular magnets 18, 19.</td>
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<td>X</td>
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<td>US 7000810 B1 (FARMER) See the whole document, in particular the canvas backing and sewn pouches.</td>
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<tr>
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<td>US 2003/0122357 A1 (RHUE) See the whole document, in particular the magnetic layer 12.</td>
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Categories:

| X | Document indicating lack of novelty or inventive step |
| Y | Document indicating lack of inventive step if combined with one or more other documents of same category. |
| & | Member of the same patent family |
| A | Document indicating technological background and/or state of the art. |
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Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC:

Worldwide search of patent documents classified in the following areas of the IPC:

B25H; B60R

The following online and other databases have been used in the preparation of this search report:

WPI, EPODOC
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