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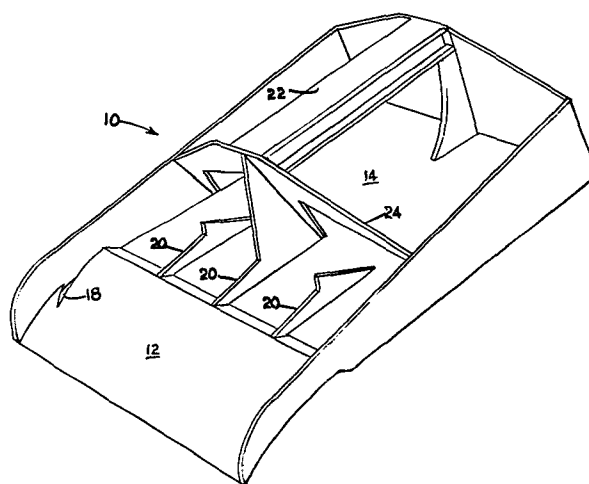
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(54)

A device for removing stains or spillage.

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A device for removing stains of spillage comprises a container (10) having a ramp (12) behind which is formed a reservoir (14). The device is located near a stain or spillage and a paddle is used to move the liquid over the ramp (12) and into the reservoir (14). The lower edge of the paddle is profiled to prevent stretching or carpet piles or other fabrics on which the spillage may be deposited.

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FIELD OF THE INVENTION

This invention relates to a device for removing or preventing stains on carpets, rugs and soft floor coverings.

BACKGROUND OF THE INVENTION

Spilt liquids of any kind generally lead to ugly stains on a floor covering or the like and the normal method of removing the stain is to use a solvent or detergent composition usually followed by infinite dilution rinsing with water or solvent followed by blotting or wiping with a cloth or sponge. Devices for use with these methods of stain removal are well known.

Further methods include the sprinkling of water based powder onto the stained area, waiting for it to dry and then vacuuming the powder out.

The above methods of spilt liquid and/or stain removal are effective to a point but suffer the disadvantage that they do not effectively extricate the liquid or stain from the fibres of the carpet pile.

Another method of removing the stain is to use a steam-cleaner which jets water into the carpet and sucks out the solution. These are machine driven and generally used for industrial purposes and therefore are too expensive for domestic carpet spot removing.

A tray having a compartment for spilt material is described in United States Patent 2,651,925. The tray has a ramp over which the material may be moved before being deposited in the compartment. This patent describes a scraper which is effective for the scraping of crumbs and the like up a ramp but would prove ineffective for the scraping of spilt material off a carpet.

In United States Patent 3,639,937 a disposable dustpan kit is described as including a carton and a paddle which may be used to scoop spillage into the carton.

United States Patent 3,534,424 describes a dustpan which is convertible into a disposal container. Spilt material may be moved into the container by a scraper. Both United States Patent 3,639,937 and United States Patent 3,534,424 mention absorbent granules being sprinkled over liquid spills, to enable the mixture to be swept off the floor and

held in the tray. The disadvantage of these two inventions is that the granules and scraper do not adequately remove the spilt liquid or stain from the fibres of the carpet. The degree to which the spilt material is removed depends entirely on the absorptive qualities of the granules and the viscosity of the spilt liquid.

It is an object of the present invention to provide a device for carpeting which mitigates the disadvantages of the prior art.

THE INVENTION

According to the invention a device is provided which comprises a first element having a ramp and a reservoir behind the ramp adapted to receive liquid forced up and over the ramp; and a second element including a substantially vertical surface with a plurality of baffles located thereon, the baffles being substantially at right angles to the surface.

In a preferred form of the invention the lower edges of the baffles are radiused to correspond with the angle of the ramp.

The baffles are preferably located flush with the lower edge of the vertical surface. However, it will be appreciated that it is possible to have the baffles located a small distance above or below the lower edge of the vertical surface. It is possible to provide second elements having differing distances to cater for differing pile depths. Preferably the second element has four equally spaced apart baffles, two of which form the sides of the element. The second element may conveniently be in the form of a paddle. The handle of the second element is preferably located substantially at right angles to the vertical surface.

It is preferred that the lower edge of the vertical surface be radiused to provide for less abrasive movement over carpet pile. It will be appreciated that various radii may be used depending on the construction of the carpet.

The reservoir may preferably include spaced apart ridges onto which the second element may be guided. In a preferred form the ridges are provided with stoppers to arrest the movement of the second element beyond a certain point. Preferably a handle is formed above the reservoir.

The ramp may be formed as a convex slope having

an extreme edge tapered downwardly into the reservoir. Preferably the ramp has spaced apart grooves for deflecting fluid towards the mid region of the ramp.

An embodiment of the invention is described by way of example with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a container according to the invention;

Figure 2 is a perspective view of a paddle for use with the container of Figure 1;

Figure 3 is a perspective view of a sponge for use with the device; and

Figures 4 and 5 show different stages of progression of the paddle of Figure 2 on to the ramp of the container.

Referring to the drawings a device for removing stains comprises a container 10 having a ramp 12 behind which is formed a reservoir 14 into which spilt liquids may be delivered by a paddle 16.

The ramp 12 has an outwardly curved surface which tapers sharply downwardly at its extremity towards the reservoir 14. Two inwardly directed grooves 18 are formed on the ramp 12 for re-directing

overflow towards the mid region of the ramp 12. The forward edge of the ramp 12 terminates in a zone of diminished material for seating on the backing of the carpet, rug or soft floor covering.

Rising from the floor of the reservoir 14 are three ridges 20 which form a guide and stop surface for the paddle 16 in use. A handle 22 is formed above the reservoir 14 and connected at one side to the back wall of the reservoir 14 while the other side is connected to a web 24 extending from the long walls of the reservoir 14.

The paddle 16 has a handle 26 fixed to a vertical plate 28 having side baffles 30 and intermediate baffles 32. The baffles 30, 32 are fixed at right angles to the plate 28 and the upper and lower edges are radiused at 34, 36 respectively. The edges of these baffles are fully radiused to minimise resistance as they go through the carpet pile.

The upper and lower edges of the vertical plate 28 are also radiused at 38, 40 respectively. These edges are radiused especially to prevent abrasive action as the paddle moves across the carpet pile.

A sponge 42 has a handle 44 and may be used for applying detergents and water thus preventing the

hands from being messed or wetted.

In operation the container 10 is placed on one side of the stain or spillage to be treated with the ramp 12 facing it. The paddle 16 is slid on the surface having the stain while applying downward pressure and maintaining the handle 26 substantially parallel to the surface. The liquid associated with the stain or spillage is moved towards the ramp 12 while being maintained in its own relative zone by the baffles 30, 32. The liquid is moved over the ramp 12 and as the paddle 16 rides the ridges 20 the liquid is deposited into the reservoir 14.

An advantage of the invention is that as the paddle 16 rides the ramp 12 the radiused surfaces 34 or 36 contact the convex surface of the ramp 12 preventing the fibres of carpets or other soft coverings from being pulled or stretched against the surface of the ramp 12 by the lower edge of the plate 28. A further advantage of the invention is that it actually squeezes the spilt material out of the carpet pile fibres as it moves across the carpet and up the ramp 12. The device of the invention has been found to be particularly

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useful for removing stains or spillage from carpets,
rugs and soft floor coverings.

CLAIMS:

1.

A device characterised in comprising a first element having a ramp and a reservoir behind the ramp adapted to receive liquid forced up and over the ramp, and a second element including a substantially vertical surface with a plurality of baffles located thereon, the baffles being substantially at right angles to the surface.

2.

A device according to claim 1 characterised in that the second element comprises a paddle having four spaced apart baffles, the lower edges and front edges which are radiused to form curved surfaces.

3.

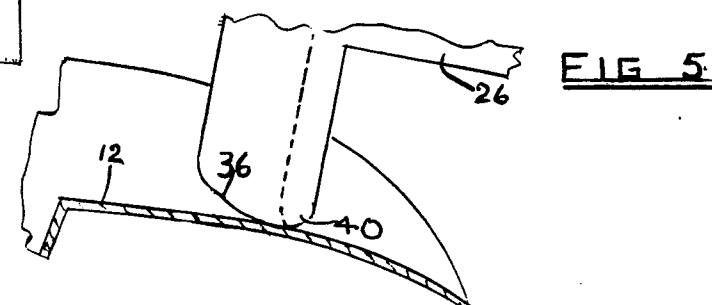
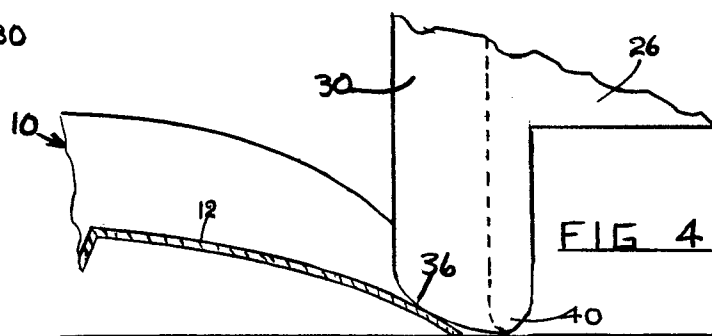
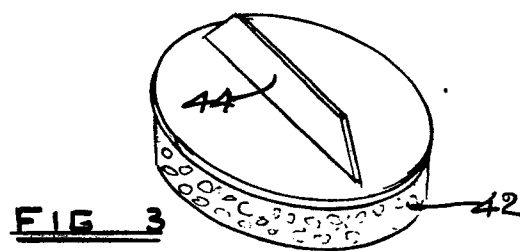
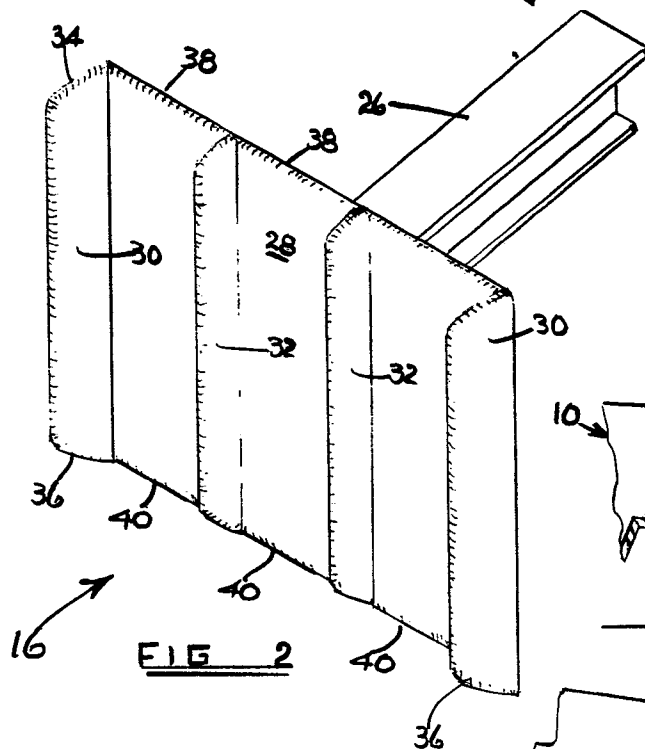
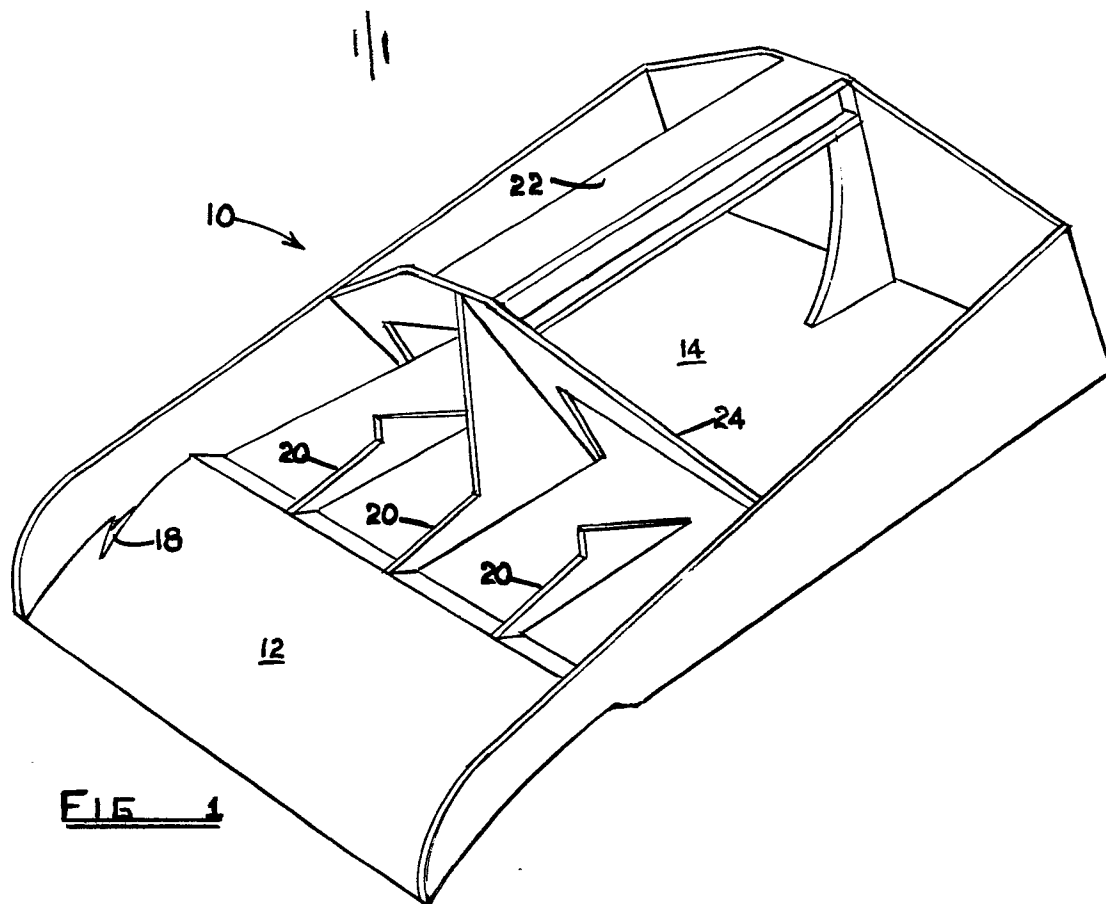
A device according to claim 1 or claim 2, characterised in that the ramp comprises a convex slope having spaced apart formations for directing fluid, the angle of curvature of the ramp corresponding with the angle of the curved surfaces of the baffles.

4.

A device according to any one of claims 1 to 3 characterised in that the reservoir is formed immediately behind the ramp and includes formations on to which the second element may be guided.

5.

A device characterised in that it includes a container having a ramp formed with a convex slope and a reservoir behind the ramp adapted to receive liquid forced up and over the ramp, and a paddle having a substantially vertical surface with spaced apart baffles formed on a forward face of the surface, the baffles being at substantially right angles to the surface and having their lower edges radiused to correspond substantially with the curvature of the ramp, the device being adapted for collecting spilt material on carpets.





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EUROPEAN SEARCH REPORT

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Application number

EP 84 30 7701

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
D,Y	US-A-3 639 937 (R. SWEENEY) * Front page; column 1, lines 48-75; column 2, lines 1-22; figures 1,2 *	1	A 47 L 13/52 E 01 H 1/12
A	---	2	
D,Y	US-A-2 651 925 (R. LAWRENCE) * Column 2, lines 12-52; figures 1-3 *	1	
A	---	2	
D,A	US-A-3 534 424 (L. LEVINSTON) ---		TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	DE-C- 622 906 (O. LIEBECK) ---		A 47 L E 01 H
A	CH-A- 582 504 (ALLSTAR VERBRAUCHSGÜTER GmbH.) -----		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27-02-1985	Examiner MUNZER E.
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			