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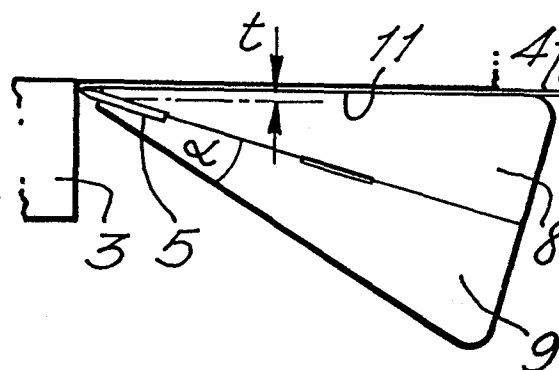
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54 Knife.

57 A knife for trimming wallpaper has two tapered body parts (8 and 9) between which is held a tipped cutting blade (5). The body parts have external side faces (11) which are flat around central recesses. When the side face of a body part is in engagement with a flat surface (4), such as a wall, the tip of the blade is a predetermined distance from the plane of the flat surface. When the end face of the body is brought into engagement with a surface transverse to the flat surface, such as an architrave (3), the knife can be drawn down in a stable manner to cut the wallpaper at the predetermined distance in a neat fashion.

The two parts of the body are identical and contain crossed inclined grooves to contain the blade so that it projects from a corner of the body.



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KNIFE

The present invention relates to a knife.

5 Various knives are in production which have retractable and/or replaceable blades. Although some of these are sold specifically for home decoration purposes, they are not particularly adapted for use in trimming wall paper.

10 When wall paper is to be trimmed around a door for instance at an architrave, control of the trimming knife for maintaining a constant edge can be difficult. The knife of the invention seeks to overcome this problem.

15 According to the invention there is provided a knife having a body adapted to stably slide on a flat surface and a blade held in the body in such manner that its tip is a predetermined distance from the flat surface when the body is against the flat surface.

20 The blade may be held with its tip coincident with the flat surface, in which case the predetermined distance is of zero length. Normally the blade will be held with its tip in the region of 1 mm from the surface.

25 In use for trimming wall paper around an architrave, the knife body is held against the wall paper which will have been worked well into the corner between the wall and the architrave. The knife is slid against the wall paper along the architrave with the blade cutting the paper at the architrave. Because the tip is held at the predetermined distance from the wall the paper is neatly trimmed with a small tidy, constant width edge of the paper turned onto the architrave.

30 It is important that the knife should be stably slidable on the wall paper. For this purpose it is preferably formed with a slidable face, which is preferably flat. This face need not be continuous of over the entire side of the body, but is preferably provided at least at the extremities of the side. The face may have recessed portion(s)

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and/or aperture(s). The face need not in fact be flat; in an extreme arrangement the face may be made stably slidable by having three dimples on the slidable face.

Thus, according to another aspect of the invention, a
5 knife has a blade-holding body with a side face engageable upon a flat surface at least at three triangulated positions and slidable over such surface in a stable manner, and a tipped cutting blade held in the body and separated from the side face by a part of the body, so that the blade tip is a
10 predetermined distance from the flat surface when the side face of the body is in engagement with the flat surface.

Preferably, the side face of the body is flat at least in the area of the peripheral portions of the side face of the body.

15 The body may be adapted to stably slide alternatively on two opposite sides thereof, thus being equally effective for use in the left or right hand of the user. In this case, the body may have a second similar side face on the opposite side of the blade, so that the blade tip is a
20 predetermined distance from the flat surface when the second side face of the body is in engagement with the flat surface. These two sides may be arranged with respect to the blade to give differing predetermined distances. However, in the preferred embodiments, the two sides are arranged to
25 give the same predetermined distance.

The blade may be adjustably held in the body. Where the blade is arranged at an angle to the or each slidable face, adjustment of the blade provides adjustment of the predetermined distance. The side faces are preferably
30 inclined to each other. The parts of the body on either side of the blade may taper equally so that the plane of the blade lies in a central plane of symmetry.

The body may be of two part construction with the blade sandwiched between the parts, preferably in a groove in the
35 body.

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Conveniently, the tip of the blade projects from one corner of the body and the adjacent end face of the body is engageable with and slideable over a surface transverse to the flat surface. In use, this edge may be run along the architrave, for example, in front of the blade to assist in working the paper into the wall/architrave corner. Where the body is of a two part construction, with the blade extending at the end of this edge, the blade is conveniently accommodated in a groove at the joint between the parts.

To provide for the parts to be truly symmetric and identical, a respective blade groove directed towards each end of the said edge is provided in each body part. However, one groove only may be provided by handing the parts. Conveniently the groove is provided equally in each part, although it may be provided entirely in either.

To grip the blade the parts are held together by securing means, conveniently a centrally placed screw. To secure the body parts from rotating about the screw they may be arranged to have interengaging formations. To provide for secure holding of the blade, the two body parts may be conveniently formed with a slight concave bowing at their mating surfaces and be drawn together by securing means to grippingly hold the blade. Such securing means may be centrally disposed in recesses in the side faces of the body.

Although the blade may be a replaceable scalpel blade, it is conveniently of the type having a series of nicks whereby the blunted tip of the blade may be successively snapped off. The edges and corners of the body may be smoothly curved.

To help understanding of the invention, specific embodiments thereof will now be described by way of example and with reference to the accompanying drawings in which:-

Figure 1 is a side view of a knife of the invention in use at an architrave;

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Figure 2 is a top view in the direction of arrow A in Figure 1;

Figure 3 is a sectional view of the knife of Figure 1 at the joint between the two parts;

5 Figure 4 is a cross-sectional end view on the line IV-IV in Figure 3;

Figure 5 is a side view, similar to Figure 1, of a second embodiment of knife according to the invention;

10 Figure 6 is a top view in the direction of arrow VI in Figure 5;

Figure 7 is a view, similar to Figure 3, of one side part of the knife body; and

Figure 8 is a sectional view, partly broken away on the line VIII-VIII of Figure 5.

15 Referring first to Figure 1, the knife 1 can be seen in use sliding against a wall 2 at an architrave 3. In Figure 2, wall paper 4 can be seen being trimmed by the blade 5 of the knife along the architrave. The wall paper 4 is well worked into the corner between the wall and the architrave and kept there by the end 6 of the knife body opposite the
20 blade 5 at an edge 7 of the knife. The blade 5 is gripped between two body parts 8,9 which taper towards the edge 7. At the edge 7 the body parts have a thickness t . If the tip 10 of the blade 5 were moved back into the body of the
25 knife to the edge 7, the tip would be spaced from the wall by a distance equal to the thickness t with, as shown in Figure 2, the slide surface 11 of the body part 8 laid against the wall. Normally the blade will extend to an extent such as shown in Figure 1. Since the blade's cen-
30 tral plane is coincident with the joint plane between the body part, which is at the angle α of taper with the slide surface 11, the tip of the blade is at a certain distance from the plane of the slide surface, and of the wall, which is somewhat less than t and is typically 1 mm. By virtue
35 of the blade being this distance from the wall, the wall

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paper is trimmed neatly with a 1 mm. edge turned onto the architrave. The height of this edge can be controlled by altering the extent of the blade.

5 Turning now to Figure 3, in order to make the two body parts identical for injection moulding purposes, when as preferred the body parts are of plastics material, at their joint face each has a pair of crossed blade grooves 12. When the two halves are brought together only one of the thus formed grooves is in fact used. Each body part has a
10 complementary recess 13 and spigot 14 for interengaging and positioning the body parts correctly with respect to each other. A centrally placed screw 15 holds the body parts together. To assist gripping of the blade 5 especially at the edge 7, the body parts are preferably slightly concave,
15 see exaggerated dashed line 16 in Figure 4. Secure holding of the blade is further assured by the depth of the grooves 12 being just under half the thickness of the blade. Figure 3 shows a recess 17 for keeping down the wall thickness of the body parts, and nicks 18 in the blade for breaking off its tip when blunt.
20

The head of the screw 15 and its nut 19 are accommodated in recesses 20 which open into depressions 21 having a roughened surface for a thumb grip. The edges 22 of the knife body are of scalloped shape to provide finger grips,
25 which each have a roughened surface.

In the second embodiment, illustrated in Figures 5 to 8, the knife 31 comprises two side parts 32 and 33 (Figure 6), each of which has an identical formation on its engaging inside face (Figure 7). The external side faces (Figure 5)
30 are similar and differ only in that one is centrally moulded to receive non-rotatably a nut whilst the other has a recess for a rotatable screw head. The side face 34 of the part 32 has a peripheral bead 35 providing a flat face engageable upon and slidable over a flat surface such as a wall 2 in a
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stable manner. Within the bead 35, the side face 34 is roughened for gripping.

5 The part 32 tapers from one wide end face 36 to a narrow end face 37. The end face 36 is curved concavely and the end face 37 is straight. At the end face 36, the sideface 34 is provided with a groove 36' to maintain as even a thickness as possible, for moulding purposes. Upper and lower end faces 38 and 39 are also curved concavely and ribbed to provide finger grip (Figure 6). The corners of
10 the part 32 are smoothly curved. A central part-spherical dished recess 40 is formed in the side face 34. In the centre is a recess and through hole for a machine screw 41 by which the two parts 32 and 33 may be secured as in the previously described embodiment.

15 The inside face of the part 32 (Figure 7), is hollow and projecting from its base 42 is a peripheral wall 43 to engage a similar wall of the part 33. A boss 44 with a central aperture and a spigot 45 project from the base 42 at positions symmetrically about the centre line, so that
20 similar components on the part 33 form interengaging formations to prevent relative rotation.

Two pairs of rails 46 and 47 project from the base 42 and are spaced slightly below the level of the peripheral wall 43. The pairs of rails extend from opposite corners
25 of the part 32 adjacent the end face 37 at equal angles. Upwardly projecting webs 48 extend from the base 42 along either side of the rails 46, so that when assembled with similar components on the part 33 the rails 47 on each part are embraced between the webs 48 on the other parts, two
30 grooves are formed in the body between the parts, into either of which a tipped cutting blade 5 similar to that in the previously described embodiment may be fitted. The total depth of groove should be just less than the thickness of the blade to improve gripping. The depth in each part
35 is thus just less than one half the thickness.

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To prepare for use, a blade 5 is placed in the groove formed in the body, either on the rails 46 or 47 in the part 32, according to which hand the operator prefers. The blade 5 is adjusted along the groove so that its tip 10 projects from the corner of the knife to a predetermined, desired distance from a flat surface upon which the flat face of the peripheral bead 35 rests. The angular disposition of the blade to the flat face enables this to be done accurately. The two parts 32 and 33 are then secured together by screw 41 and nut (not shown).

The knife is then placed in position as described previously with the corner of the end face 37 remote from the blade tip 10 in engagement with a surface transverse to the flat surface, such as an architrave 3. The knife can then be used as previously described.

In order to secure the blade firmly in position, the two parts 32 and 33 may be slightly concavely bowed as described previously. Alternatively, the non-cutting edge of the blade 5 may have a series of notches each corresponding to a portion of the blade defined by a nick 18 (Figure 3). Then one or more complementary knobs on the upper of the rails 46 and 47 would enter one or more of the notches when the blade was in position to prevent movement of the blade into the knife under applied pressure in use. In this case, of course, the blade position would not be adjustable.

It will be appreciated that to ensure a stable engagement and sliding of the knife over the flat surface of the wall 2, the side face of the knife should engage the flat surface at least at three triangulated positions, one position being offset from the line joining the others. Thus the engagement positions, instead of extending around the whole periphery, could be restricted to, for example, the corners of the end face 36 and the middle of the end face 37.

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As described above the inside of the parts 32 and 33 are identical. This is convenient in economising on tooling. Another alternative is that the end faces 38,39 at the corners with the end face 37 be at the angle of the nicks 18 in the blade, when in the knife, to assist breaking off of the blade.

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CLAIMS

1. A knife (1;31) having a body (8,9;32,33) adapted to stably slide on a flat surface (2) and a blade (5) held
5 in the body in such manner that its tip (10) is a predetermined distance from the flat surface (2) when the body is against the flat surface.
2. A knife (1;31) having a blade-holding body (8,9;32,33) with a side face (11;34) engageable upon a flat surface (2)
10 at least at three triangulated positions and slidable over such surface in a stable manner, and a tipped cutting blade (5) held in the body and separated from the side face by a part (8;32) of the body, so that the blade tip (10) is a predetermined distance from the flat surface when the side
15 face of the body is in engagement with the flat surface.
3. A knife according to claim 1 or 2, characterised in that the surface engaging face of the body is flat in the area of the peripheral portions of the side face of the body.
- 20 4. A knife according to claim 1, 2 or 3, characterised in that the body has a second similar side face on the opposite side of the blade (5), so that the blade tip (10) is a predetermined distance from the flat surface (2) when the second side face of the body is in engagement with the
25 flat surface.
5. A knife according to claim 4, characterised in that the side faces are inclined to each other and the plane of the blade is inclined to the side faces (Figures 2 and 6).
- 30 6. A knife according to claim 5, characterised in that the parts (8,9;32,33) of the body on either side of the blade (5) taper equally so that the plane of the blade lies in a central plane of symmetry.
7. A knife according to any preceding claim, characterised in that the blade (5) is adjustably held in the
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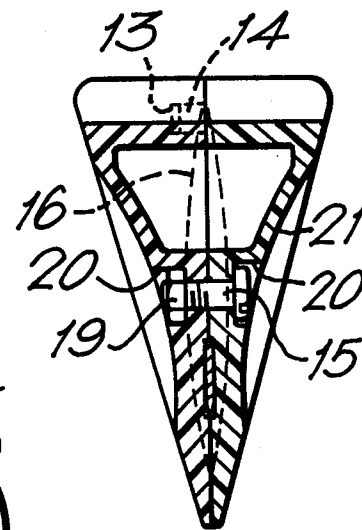
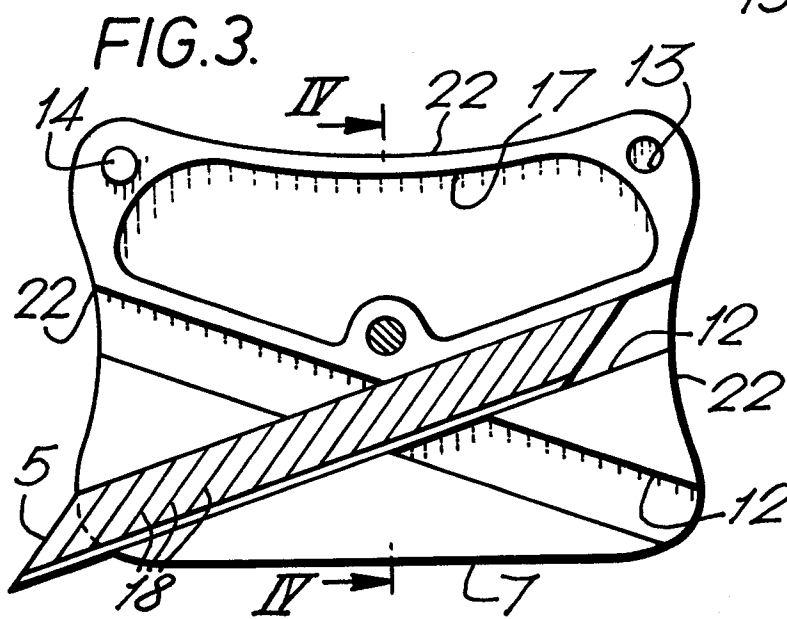
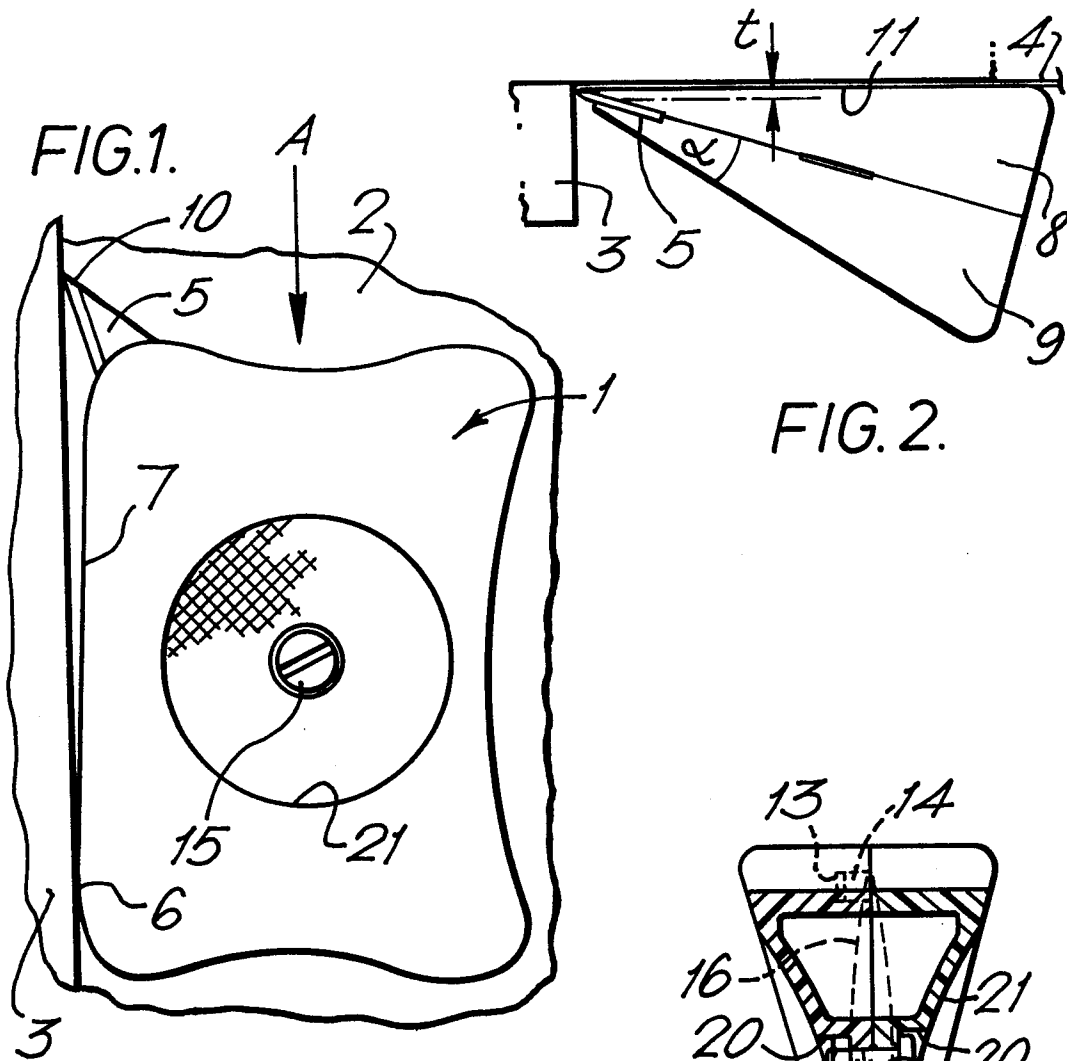
body to permit alteration of the predetermined distance.

5 8. A knife according to any preceding claim, characterised in that the tip (10) of the blade (5) projects from one corner of the body and the adjacent end face (6;37) of the body is engageable with and slideable over a surface (3) transverse to the flat surface (2).

10 9. A knife according to any preceding claim, characterised in that the body is of two part construction (8,9;32,22) and the blade (5) is held in one of two grooves in the body, each groove being formed in both parts of the body, with two inclined half grooves in each part of the body, so that the parts may be similar.

15 10. A knife according to claim 9, characterised in that the parts have a slight concave bowing to their engaging faces, and are drawn together by securing means to grippingly hold the blade.

20 11. A knife according to claim 9, characterised in that the blade and parts have interengaging formations to prevent endwise movement of the blade under pressure.



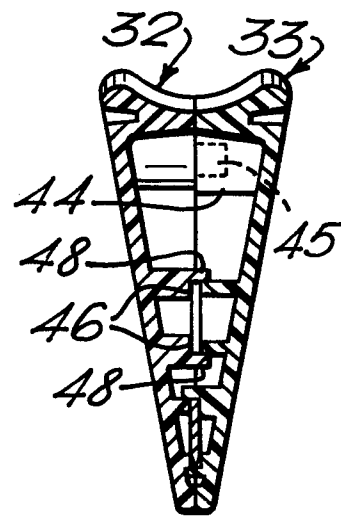
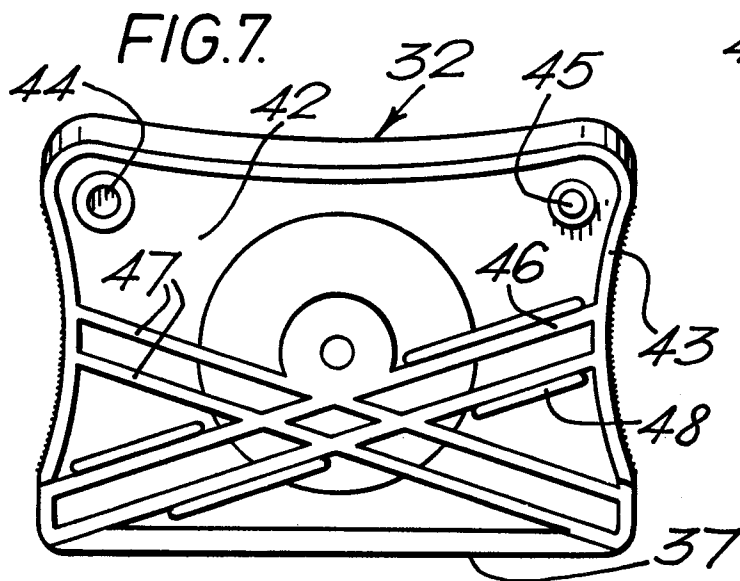
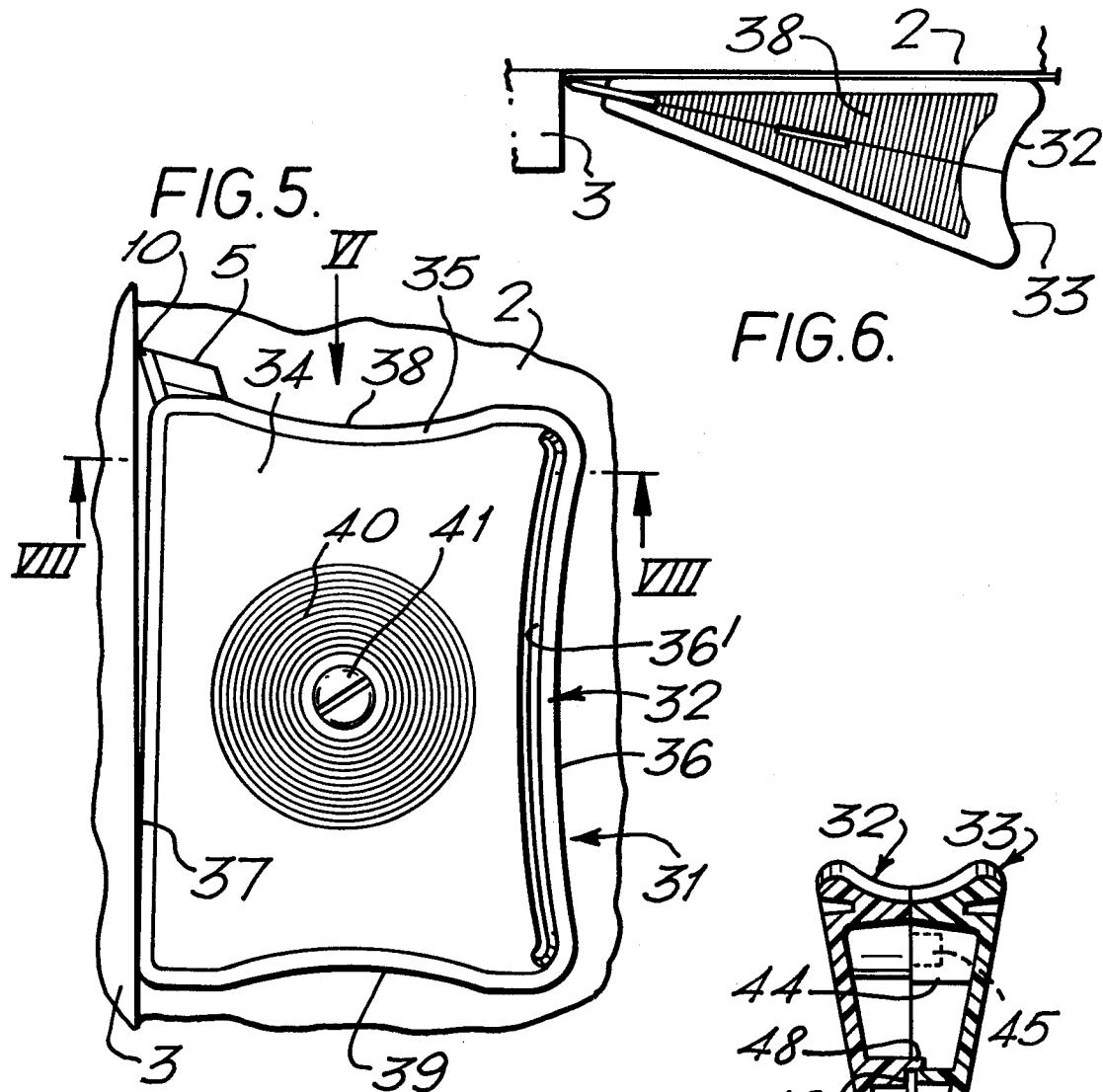


FIG. 8.



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EUROPEAN SEARCH REPORT

0132416

Application number

EP 84305076.6

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)
X	DE - A1 - 2 946 914 (WOLFF)	1,2,3,	B 26 B 3/08
A	* Totality *	7,8	
	--	4,5	
P,A	GB - A - 2 126 939 (COLEMAN)	6	
	* Fig. 2 *		
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A	US - A - 4 106 196 (SCHMITHLINE)	9,11	
	* Fig. 3,4 *		

The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			B 26 B 3/00
			B 26 B 5/00
Place of search VIENNA		Date of completion of the search 10-10-1984	Examiner MANLIK
CATEGORY OF CITED DOCUMENTS			
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