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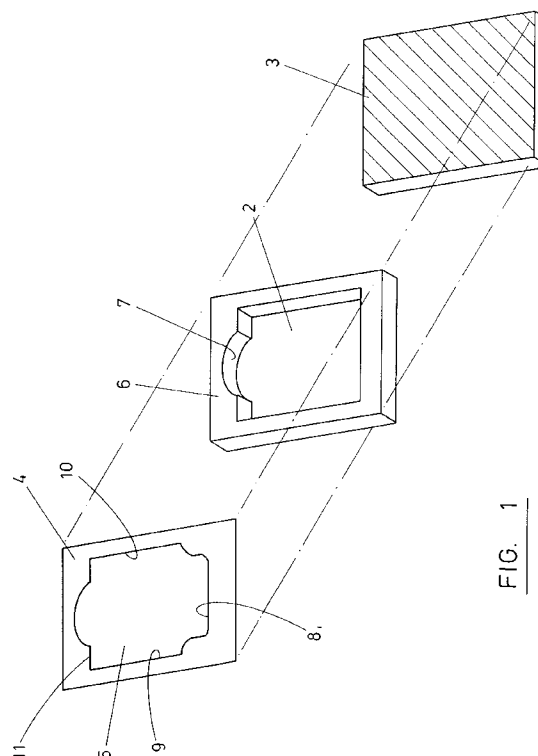
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(54) Display device

(57) A display device (1) comprises a plurality recesses (2) formed in a base portion (3). An overlay (4) forms the top layer of the display device (1) and is shaped to form a plurality of apertures (5) each of which apertures is positioned to correspond with the position of the respective recess (2). Each recess (2) has an aperture (5) positioned over it and the position and shape of each aperture (5) is such that at least one edge (8, 9, 10) of the overlay (4) defining a particular aperture (5) overhangs the corresponding edge (11) defining the corresponding recess (2) to form a lip. The lip may be used to retain, for example, carpet samples (32) within the display device (1) without the need of adhesives.



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Description

This invention relates to a display device for displaying objects, and particularly, but not exclusively, to a display device for displaying a plurality of carpet samples or carpet chips.

It is often required to display a plurality of carpet chips in a folder or book. For example, in a carpet shop or showroom it may be desirable to be able to show to customers and potential customers the full range of colours, textures and materials from which carpets are made. Rather than view the different carpets as they are stored in rolls which can be inconvenient, requiring customers to walk around large portions of a store room, it is more convenient for the customer to view samples of the different carpet mounted in a display device.

Display devices of this type may be used separately, or may be used to form a book or folder having a plurality of display devices.

A known display device comprises a tray which is a vacuum formed plastics layer having recesses formed in the surface of the layer. Individual carpet chips may be placed in a particular recess. An overlay is then placed over the recesses which overlay comprises apertures positioned to correspond with the position of the recesses. Carpet samples are then viewed through the apertures. Generally, a recess will be shaped to receive more than one carpet chip, and the apertures will be positioned to correspond with separate pieces of carpet chip.

A disadvantage of this known display device is that it is not possible to remove samples after they have been positioned within the display device, and after the overlay has been placed over the samples and adhesively attached to the base. In many circumstances it is desirable to be able to remove carpet samples to, for example, replace a particular sample with a different sample, or to allow customers to feel the sample and to view the thickness of the sample.

According to the present invention there is provided a display device comprising:

- a base;
- retaining means for retaining a sample in place, and
- an overlay attachable to the base or the retaining means, and shaped to allow insertion, subsequent retention and removal of the sample after the overlay has been attached to the base or retaining means.

By means of the present invention therefore samples, for example, samples of carpet may be positioned in a display device after the overlay has been attached to the base or retaining means of the display device. The advantage of such a system is that each carpet sample is removably retainable within the display device, and individual samples may be removed and replaced or replaced with other samples without having to dismantle the display means.

A further advantage of the display device according

to the present invention is that the display device is completely assembled prior to carpet samples being inserted into the display device. In addition once carpet samples have been removed from the display device, the display device remains intact and may be stored for future use.

The present invention will be particularly useful to, for example, architects and other people choosing materials and colour schemes for buildings. An architect, for example, would be able to refer to a folder comprising a plurality of display devices according to the present invention, and use the folder for selecting colours, textures and carpets most suitable to a particular environment. For example, a polypropylene carpet may be used in a computer office because of its antistatic properties. In addition, the present invention may also be used in conventional carpet showroom environments.

The display means may be formed from any suitable material, for example, cardboard, laminated cardboard, or any plastics material.

Advantageously, the retaining means comprises an intermediate layer defining recesses on the base into which samples are positionable. The retaining means serves as a filler and accommodates for the thickness of the carpet samples. The retaining means may be formed from any suitable material and may be either rigid or flexible. One example of a suitable material is corrugated cardboard.

The retaining means may be formed integrally with the base or may be separately formed and then attached to the base by any suitable means, for example, by means of adhesive.

The overlay is fixedly attachable to the retaining means by, for example, means of adhesive.

The overlay is shaped to define apertures which apertures correspond to the position of the recesses defined by the retaining means. The retaining means define recesses having edges, and the overlay defines apertures having edges, one or more of which edges of each aperture overhangs the one or more corresponding edges of a respective recess.

This means that the apertures defined by the overlay overhang a respective recess on at least one edge to form one or more lips.

A carpet sample to be inserted into a particular recess may therefore be held in position by the presence of one or more the lips.

Preferably, an aperture is lipped on at least part of three edges defining the aperture and therefore overhangs a respective recess on at least part of at least three edges.

To insert a carpet sample into a recess, all that is required is to insert edges of the carpet sample underneath the lips of the aperture in order that the carpet sample is held in place.

Preferably, at least one of the edges of the aperture not overhanging the edges of the recess is formed with an indent. The indent is shaped to allow insertion of a finger or thumb of a hand of a person either inserting or

removing a carpet sample from the display device.

By means of the present invention therefore individual carpet samples may be held in position in recesses without the need to adhesively attach the carpet sample to the display device. The samples are held in position by an overlay which is shaped to define apertures positioned to correspond with the position of the recesses.

A further advantage of the present invention is that the pile of the carpet sample is not crushed.

The invention will now be further described by way of example only with reference to the accompanying drawings in which:

Figure 1 is an exploded three dimensional representation of a portion of a display device according to the present invention;

Figure 2 is a schematic representation of a portion of a display device according to the present invention;

Figure 3 is a cross sectional representation of the portion of the display device of Figure 2 taken along A-A with a carpet sample in place;

Figure 4 is a cross sectional representation of the portion of the display device of Figure 2 taken along B-B with a carpet sample in place.

Figure 5 is a schematic representation of a display device according to the present invention when viewed from above;

Figure 6 is a schematic representation of a portion of a display device according to the present invention showing how a carpet sample would be inserted into the device;

Figure 7 is a schematic representation of a portion of a display device according to the present invention showing how a carpet sample may be removed from the device; and

Figure 8 is a schematic representation of the portion of the display device shown in Figure 4 showing removal of a carpet sample from a different angle.

Referring to the Figures a display device according to the present invention is designated generally by the reference numeral 1. The display device comprises a plurality of recesses 2 (in this example 9 recesses) formed in a base portion 3 of the display device 1. An overlay 4 forms a top layer of the display device 1, which overlay 4 is shaped to form a plurality of apertures 5, each of which apertures is positioned to correspond with the position of a respective recess 2.

The display device may be formed from any suitable material, but in this example is made entirely from card-

board. However, the display device could equally be made from, for example, plastics material.

The base board 3 comprises a generally flat board onto which retaining means 6 in the form of a filler is positioned. In this example the filler is formed separately from the base 3, although equally the filler could be formed integrally with the base 3. The filler is formed in this example from corrugated cardboard and is adhesively attached to the base 3. The filler defines the recesses 2. The shape of the recess is substantially rectangular, but one side of the recess 2 is shaped to include a curved portion 7.

The overlay 4 is adhesively attached to the base 3 and retaining means 6 by, for example, adhesives. The overlay 4 defines a plurality of apertures 5 which apertures are positioned to correspond to the positions of the recesses 2. In other words, the overlay 4 will be positioned such that each recess has an aperture positioned over it when the overlay 4 is in place. The shape of each aperture does not correspond exactly to the shape of the corresponding recess. In particular, the aperture is shaped such that at least one edge 8 of the overlay defining a particular aperture overhangs the corresponding edge defining the corresponding recess to form a lip. The lip may be used to retain a carpet sample 13 without the need for use of adhesives.

In the illustrated example, edges 9, 10 defining an aperture 5 are also dimensioned to overhang from the corresponding edges defining the corresponding recess. However, edge 11 of an aperture is shaped to lie substantially flush with the corresponding edge of the recess 2. In use, when it is required to insert a sample into an aperture 5, the edges of the carpet sample will be pushed under edges 8, 9 and 10 of the aperture 5 and the carpet will be pushed down in the direction of arrow 30 on Figure 3. It will then be possible to place the remaining edge 31 of the carpet sample 32 in the recess such that the edge 31 lies substantially flush with edge 12 of recess 2 and edge 11 of aperture 5.

When it is required to remove the sample from the recess 2, a finger or thumb of a person removing the sample 32 may be placed in the recess portion 33 formed by the curved portion of both the recess 2 and the aperture 5. The carpet sample may then be moved in the direction of arrow 40 in Figure 4 which causes the edges of the carpet which are retained by the lips of the aperture 5 to be pulled away from the lipped portion allowing the sample to be removed.

In the illustrated example, the edges defining each aperture 5 overhang the corresponding edges of the corresponding recess 2 substantially along the entire edge 8, but only partially along edges 9 and 10.

Other shapes of apertures could also be used.

Although the present invention has been described predominantly in terms of carpet samples it is to be understood that the display device could be used for displaying other types of objects.

Claims

1. A display device (1) for displaying samples comprising:

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a base (3);
retaining means (6) for retaining a sample in
place;
an overlay (4) attachable to the base (3) or the
retaining means (6) and shaped to allow inser-
tion, subsequent retention and removal of the
sample after the overlay has been attached to
the base or retaining means.

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2. A display device comprising an intermediate layer
defining a plurality of recesses (2) on the base into
which the samples are positionable.

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3. A display device according to claim 1 or claim 2
wherein the retaining means (6) is formed integrally
with the base.

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4. A display device according to claim 1 or claim 2
wherein the retaining means (6) is separately
formed and then attached to the base.

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5. A display device according to any one of the preced-
ing claims wherein the overlay (4) is fixedly attach-
able to the retaining means (6).

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6. A display device according to any one of the preced-
ing claims wherein the overlay (4) is shaped to
define apertures (5), which apertures correspond to
the position of the recesses defined by the retaining
means.

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7. A display device according to claim 6 wherein the
retaining means (6) defines recesses (2) having
edges (11), and the overlay defines apertures hav-
ing edges (8, 9, 10), one or more of which edges of
each aperture overhangs the one or more corre-
sponding edges of the respective recess to form one
or more lips.

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8. A display device according to claim 7 wherein an
aperture (5) is lipped on at least part of three edges
(8, 9, 10) defining the aperture and therefore over-
hangs the respective recess (2) on at least part of at
least three edges (11).

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9. A display device according to claim 8 wherein at
least one of the edges of the aperture (5) not over-
hanging the edges of the recess (4) is formed with
an indent.

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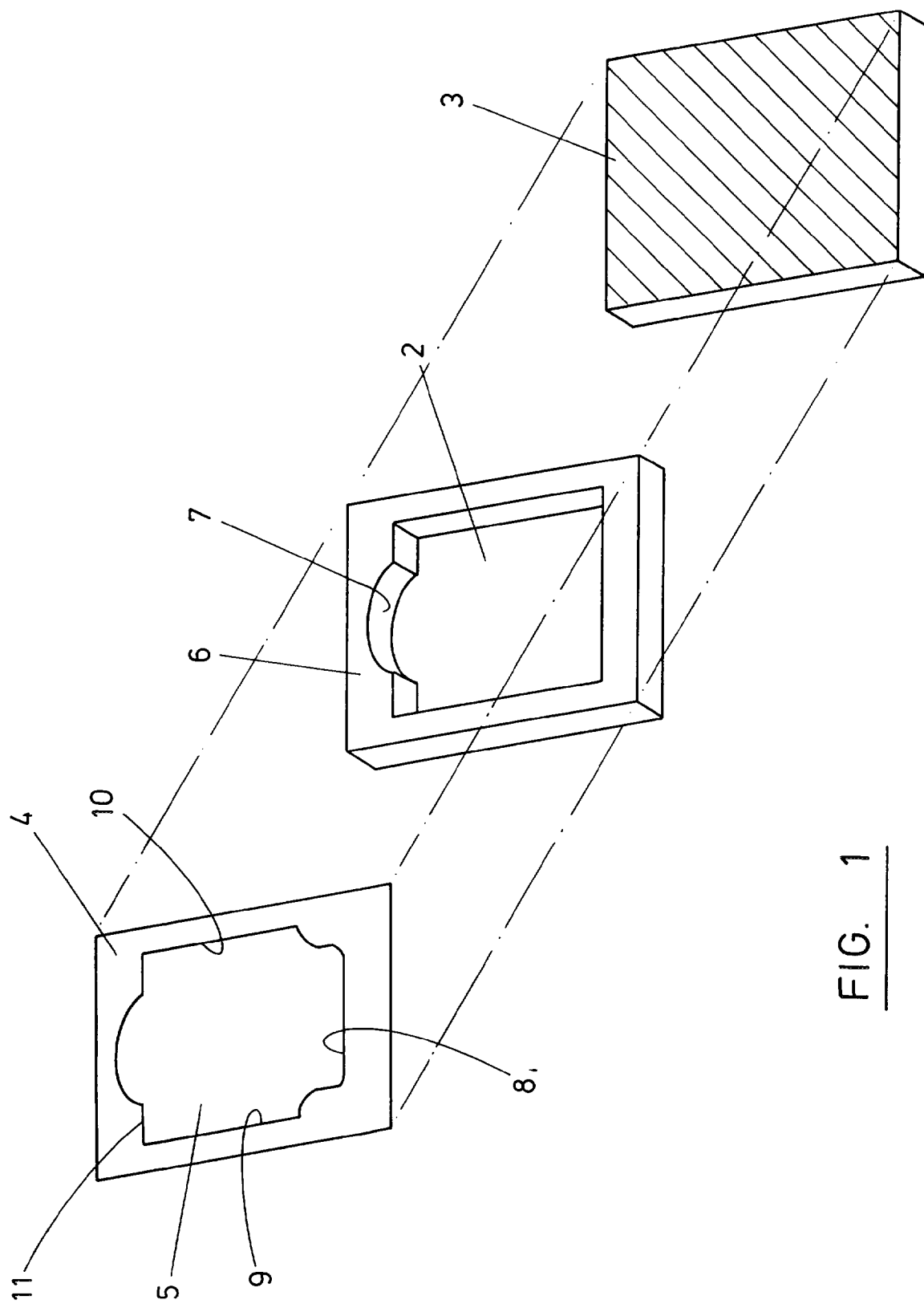


FIG. 1

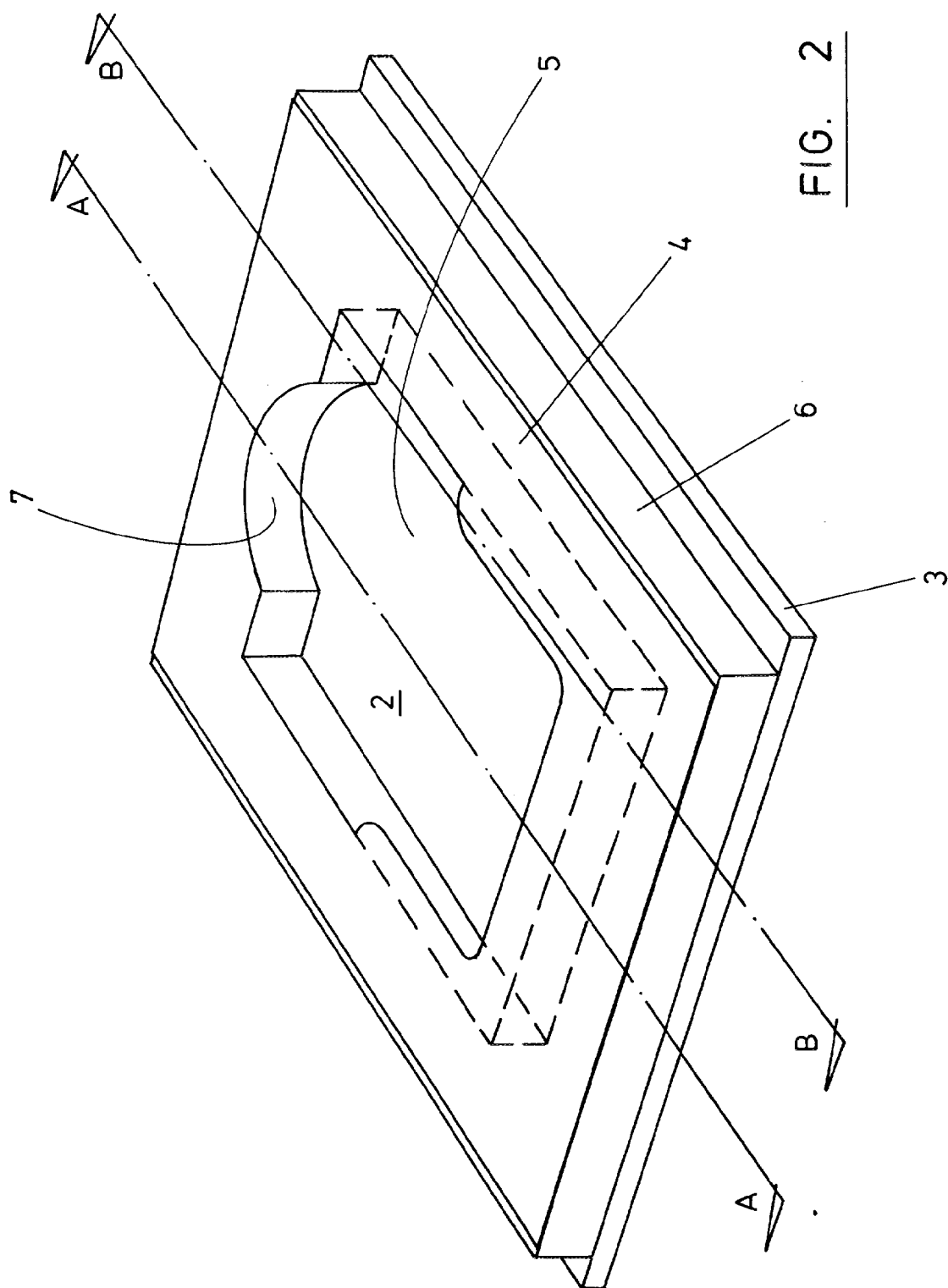


FIG. 2

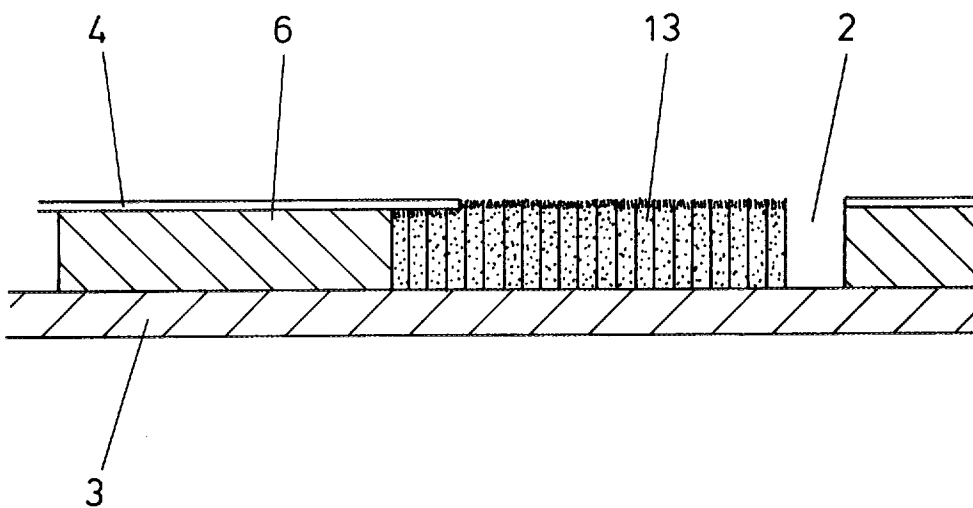


FIG. 3

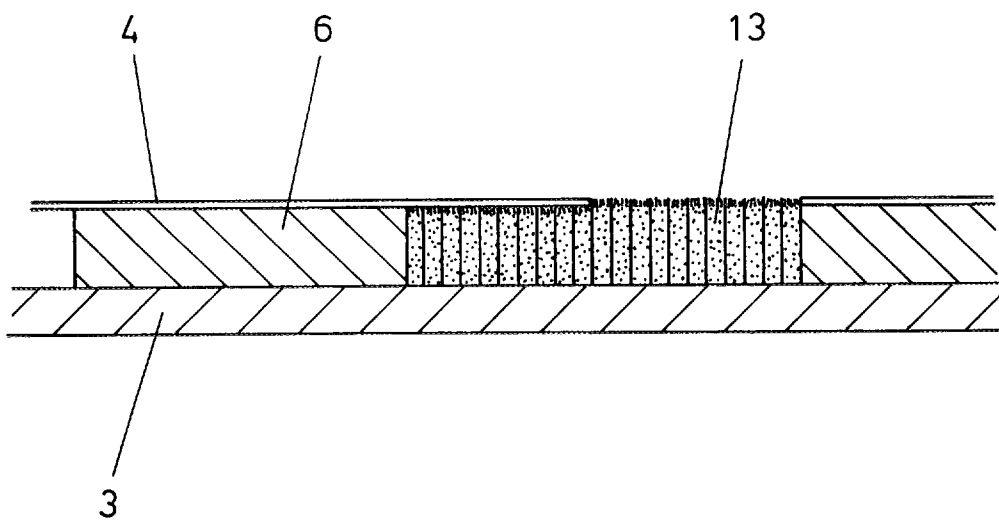


FIG. 4

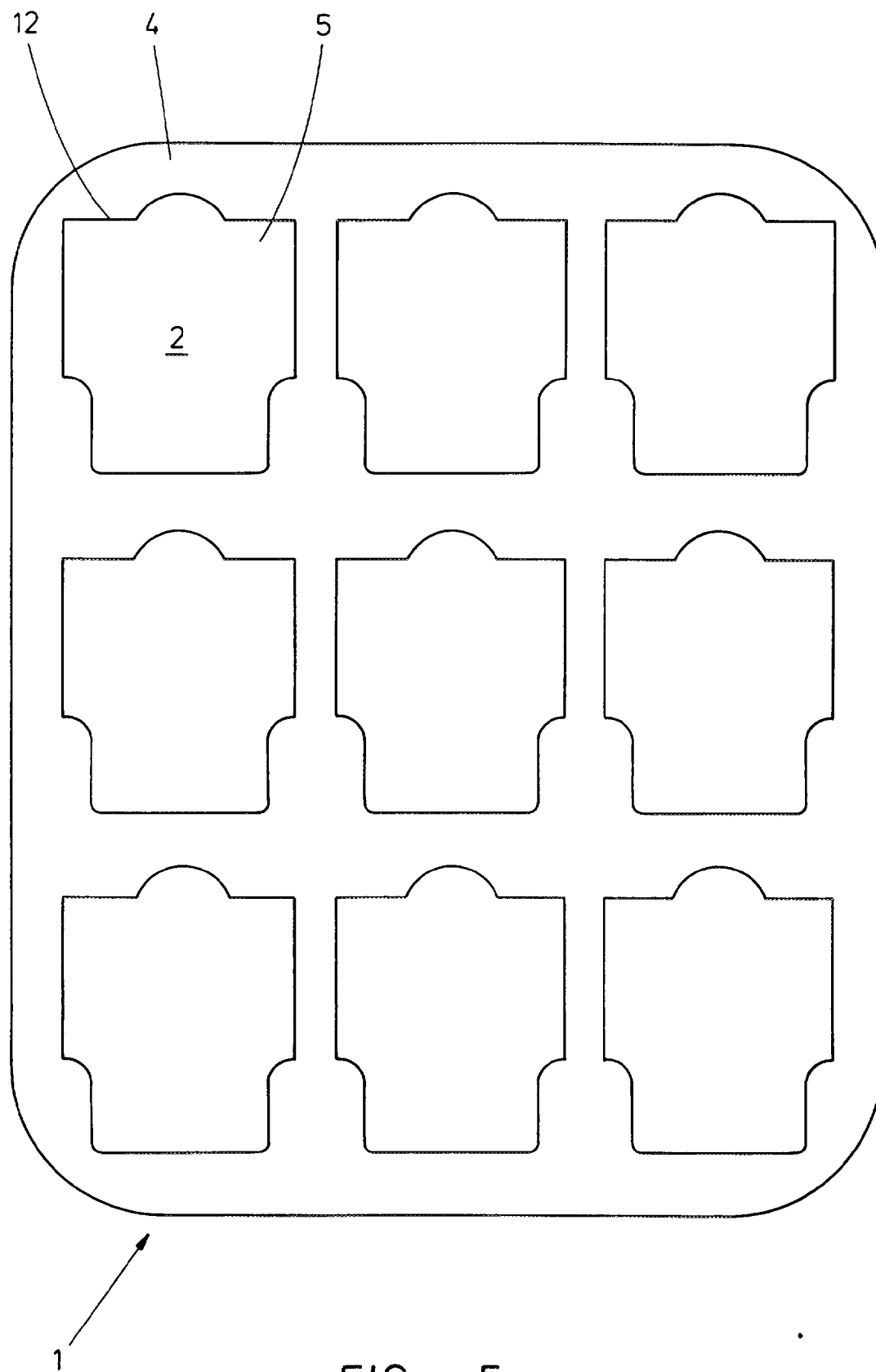


FIG. 5

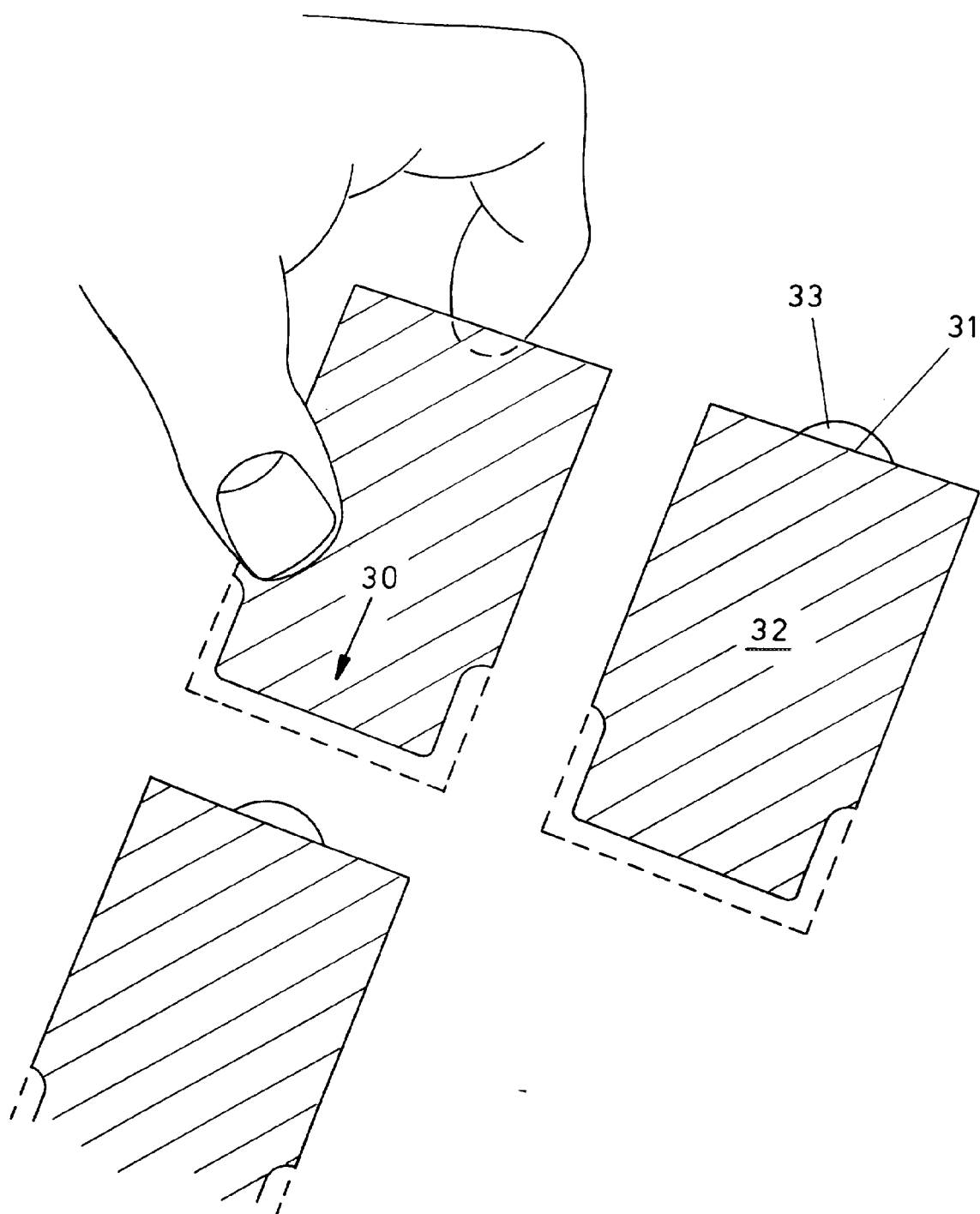


FIG. 6

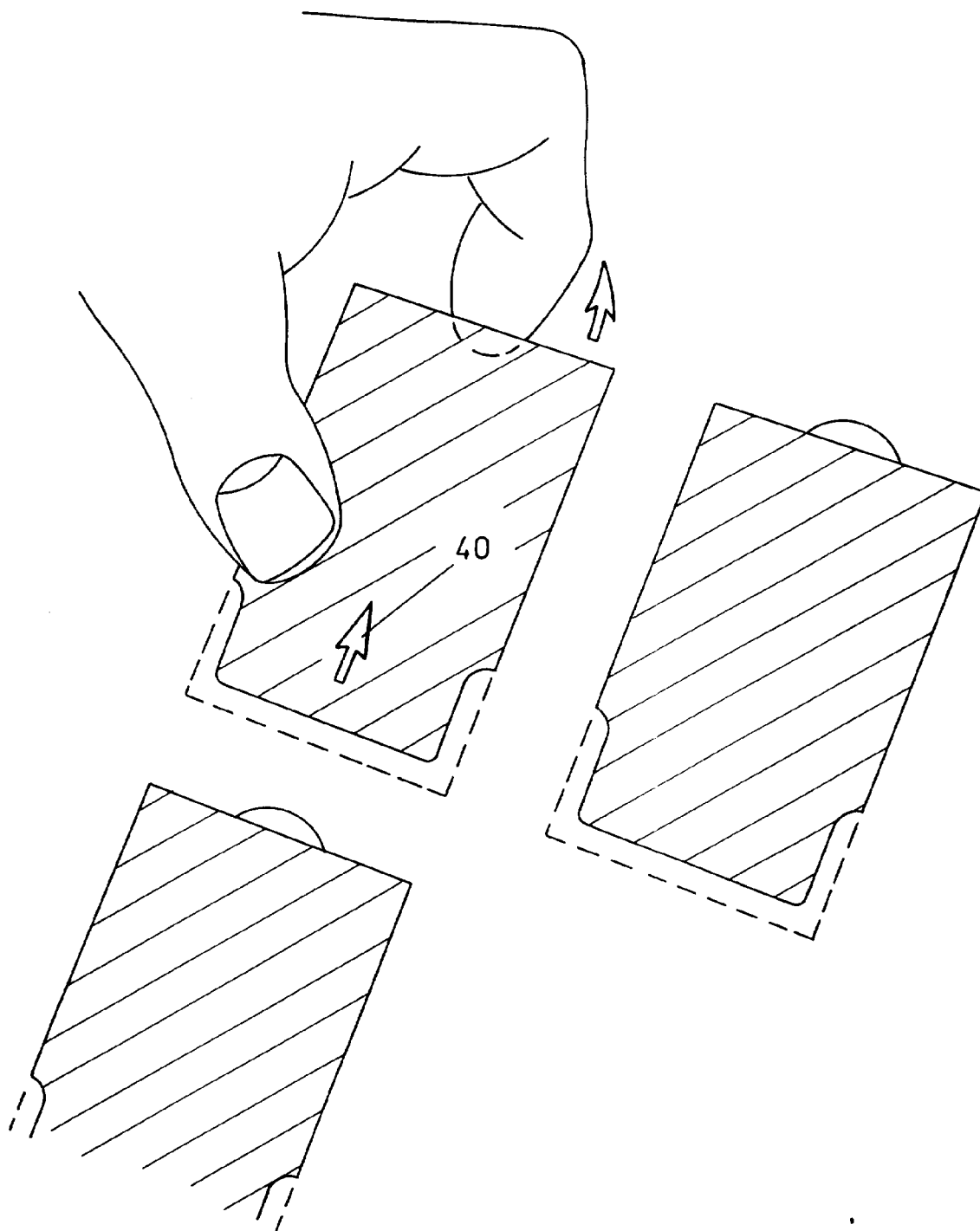


FIG. 7

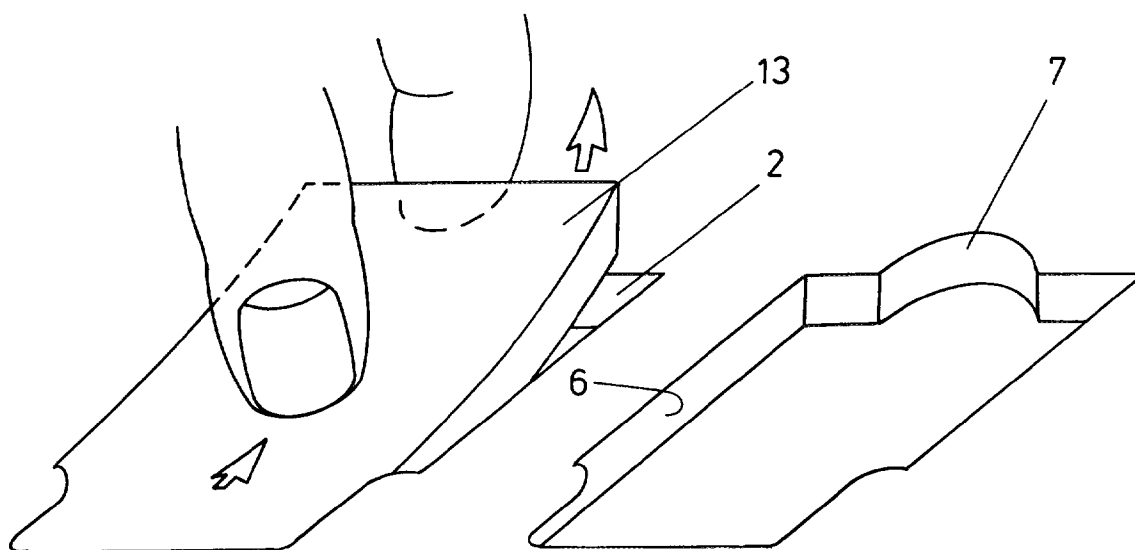


FIG. 8



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EUROPEAN SEARCH REPORT

Application Number
EP 95 30 7121

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.6)
X	US-A-5 119 574 (KING) * column 3, line 6 - column 5, line 10; figures 1-6 * ---	1,2,4,5, 7	G09F5/04
A	GB-A-2 192 085 (BEWDLEY NEWTON LTD.) * page 2, line 12 - line 84; figures 1-3 * ---	1,2,4-8	
A	DE-U-19 09 873 (FA. KLAUS LANGHORST) * page 3, line 7 - page 4, line 22; figures 1,2 * ---	1,2,4, 6-8	
A	DE-U-19 95 023 (FA. DETLEF HOLTMANN, PLASTIKVERARBEITUNG) * page 4, line 7 - page 5, line 16; figures 1,2 * ---	1-3,7	
A	US-A-5 191 972 (HELZER ET AL.) * column 3, line 35 - column 5, line 20; figures 1-6 * -----	1-3	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			G09F A47F
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 29 December 1995	Examiner Taylor, P
CATEGORY OF CITED DOCUMENTS 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 I : 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			

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