



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 0 920 893 A2**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
09.06.1999 Bulletin 1999/23

(51) Int. Cl.⁶: **A63H 33/38**

(21) Application number: **98309949.0**

(22) Date of filing: **04.12.1998**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Legrand, Christian**
11.110 Nonthaburi (TH)

(74) Representative:
Lyons, Andrew John et al
ROYSTONS,
Tower Building,
Water Street
Liverpool L3 1BA, Merseyside (GB)

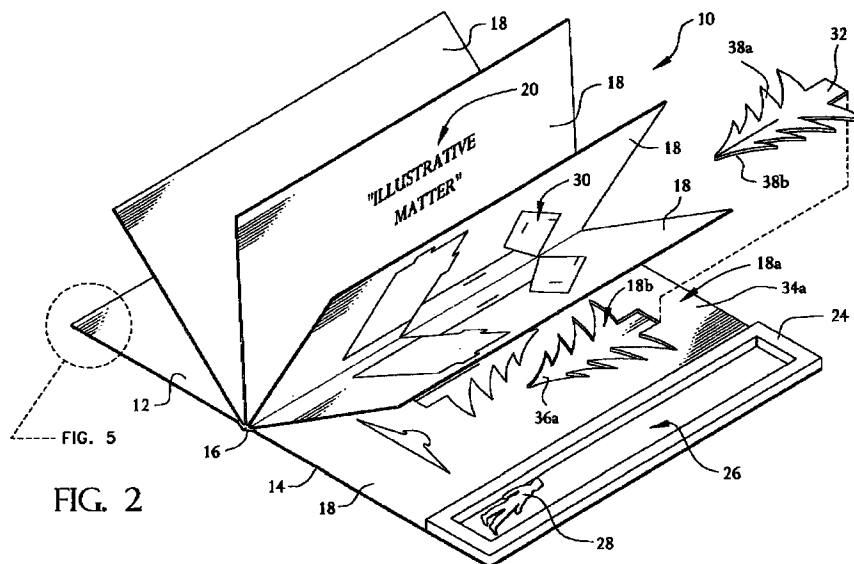
(30) Priority: **04.12.1997 US 985130**

(71) Applicant: **Legrand, Christian**
11.110 Nonthaburi (TH)

(54) **Pop-up board book**

(57) A book (10) includes a page (18) which is fabricated from a first and a second sheet (18a, 18b). One face of the first sheet is attached to a face of the second sheet to form a two-ply page. A cut-out pop-up or

removable portion (32) is formed in the first sheet. The cut-out portion can be assembled into a three-dimensional structure.



EP 0 920 893 A2

Description

Field of the Invention

[0001] The invention relates generally to books and, more particularly, pertains to a book having a three-dimensional pop-up element and/or a removable element formed in its pages.

Background of the Invention

[0002] Existing books having three-dimensional elements, such as pop-up elements, typically require an excessive quantity of manual labor to assemble. Typically, pop-up elements are cut from a separate blank, folded, and adhesively attached to the pages of the book to form the three-dimensional structure. This results in a finished product which is prohibitively expensive to manufacture.

[0003] Thus, there exists a need for a book having a three-dimensional element or removable form which is inexpensive to produce, yet aesthetically pleasing to the consumer.

Summary of the Invention

[0004] The invention relates to a book comprising a page which is fabricated from a first and a second sheet. One face of the first sheet is attached to a face of the second sheet to form a two-ply page. A cut-out pop-up or removable portion formed in the first sheet. The cut-out portion can be assembled into a three-dimensional structure. The book may have illustrative matter printed on the faces of the first or second sheet.

[0005] The cut-out portion may comprise a pop-up element which includes a creased portion that permits the pop-up element to stand and/or be placed into a three-dimensional configuration. Illustrative matter may be printed on the pop-up element. Alternatively, the cut-out element may be removable from the first sheet.

[0006] The book may include a cover having an extended lip. A container which holds articles may be disposed on the lip. Also, the binding for the book may have a crease formed thereon which allows the book to lay flat on a planar surface when the pages are open and the pop-up elements are erected.

Brief Description of the Drawings

[0007] For the purpose of illustrating the invention, there is shown in the drawings a form which is presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

Figure 1 is an isometric view of a closed book as contemplated by the present invention.

Figure 2 is an isometric view of an opened book.

Figure 3 is an isometric view of a book opened to a pop-up element.

Figure 4 is an isometric view of an open book having a pop-up element assembled thereon.

Figure 5 is a partially exploded cut-away of a portion of the book of the present invention.

Figure 6 is a partially cross-sectional view of the book embodiment as taken along line 6-6 of Figure 3.

Figure 7 is an isometric view of another book embodiment as contemplated by the present invention.

Figure 8 is an isometric view of a third book as contemplated by the present invention.

Figure 9 is a cross-sectional view of the book of Figure 8 as taken along line 9-9.

Detailed Description of the Drawings

[0008] In the drawings, where like numerals identify similar elements, there is shown various forms of the invention which are presently preferred. In Figure 1, there is shown a pop-up board book which is generally designated by the numeral 10. The book 10 includes a front cover 12 and a back cover 14. The front cover 12 is bound to the back cover 14 by a spine or binding 16. A plurality of sheets or leaves 18 are bound between the front cover 12 and the back cover 14 and form the pages of the book. The book 10 may be bound in any conventional manner. Appropriate illustrative matter or indicia 20 is applied to the covers 12 and 14, the spine 16, and/or the pages 18 by any suitable printing process.

[0009] In the embodiment shown in FIG 1, the back cover 14 has an extended portion or lip 22 which extends outwardly from the spine 16 a greater distance than the front cover. A container 24 is attached to the extended lip 22. The container 24 may be removably or fixedly attached to the lip 22, as desired. The container 24 includes an interior chamber or cavity 26 for holding small articles 28, such as a figurine, a toy or the like, therein. Preferably, the illustrative matter or indicia 20 and the article 28 are complementary or share a common theme with the articles 28 so as to enhance the entertainment and educational value of the book 10.

[0010] Book 10 is shown in Figures 2, 3 and 4 in an opened condition, exposing the pages 18. As shown in Figure 2, various pop-up elements 30 and removable forms 32 are formed on the pages 18 of the book 10. In the embodiment shown the pop-up element 30 is in the form of a house or hut and the removable form 32 is in the form of a tree. However, these shapes may be of any desired construction or form.

[0011] As best seen in Figure 5, each page 18 of the book 10 comprises two sheets of paper 18a and 18b which are adhesively attached to one another so as to form a two-ply sheet. The top sheet 18a has a pair of opposing faces 34a and 34b. Similarly, sheet 18b has a pair of opposing faces 36a and 36b. Face 34b is adhe-

sively attached to 36a to form the two-ply sheet. It should be understood that faces 34a and 36b define the outer faces of page 18.

[0012] It is contemplated that each face 34a, 34b, 36a, and 36b may be preprinted with indicia or illustrative matter before the sheets 18a and 18b are adhesively attached to form page 18. Preferably, the indicia or illustrative matter would be printed using a four-color process. In addition, it is preferred that each sheet 18a and 18b is fabricated from a paper material such that page 18 has a weight of from about 450 g. to about 500 g. A book fabricated from paper pages in this weight range is known in the book binding industry as a "board book" because the pages are of a heavy or stiff construction, like a "board". Such heavy-weight pages are desirable so that the pop-up element 30 and the removable form 32 have a suitable stiffness and durability, as described below.

[0013] Referring now to Figure 2, removable form 32 comprises a portion of the sheet 18a. Form 32 is pre-cut from sheet 18a such as by a die cutting process or the like. It is contemplated that the removable form 32 is die-cut in such a way that it would be removable by an unsophisticated user, such as a child. It should be understood that sheets 18a and 18b would not be adhesively attached in the area comprising the form 32. It is also contemplated that removable form 32 has illustrative matter or indicia printed thereon. For example, in the embodiment shown, branches, leaves, a trunk and/or suitable colors would be applied to both faces 38a and 38b of the removable form 32 to simulate the appearance of a tree.

[0014] Referring now to Figure 3, pop-up element 30 is shown spanning two pages 18 of the book 10. It should be understood that the pop-up element 30 may also be formed on a single page if desired. Similar to removable form 32, the pop-up element 30 is pre-cut into sheet 18a. The pop-up element 30 includes fold or crease lines 40, tabs 42 and slots 44 for assembly purposes. Similar to removable form 32, illustrative matter or indicia 20 may be applied to both faces of sheet 18a to simulate the desired appearance of the pop-up element 30, such as a house, as depicted in the illustrated embodiment.

[0015] Referring now to Figure 4, the pop-up element 30 is shown in an assembled condition. To assemble the pop-up element 30, a user folds the element 30 along crease line 40. The tabs 42 are then inserted into the corresponding slots 44 to secure the pop-up element 30 in a three-dimensional position. The tree form 32 and the figurine article 28 may be placed on the same page as the pop-up 30 to create a diorama. To enhance the diorama effect related illustrative matter or indicia is applied to faces 34a and 36a to simulate a surface, such as a lawn, road or the like.

[0016] The pop-up book 10 of the present invention is a self-contained educational or entertainment article. The two-ply preformed and preprinted construction of

the pop-up element 30 and the removable form 32 avoids the preassembly required by existing pop-up books. Since preassembly is not required, the pop-up board book 10 can be mass produced inexpensively

[0017] In Figure 6 the spine or binding 16 is shown. The front cover 12 is attached to the first sheet 50. Similarly, the back cover 14 is attached to the last sheet 52. Typically, the binding or spine is not attached to the first sheet 50 or the back sheet 52 so as to allow the book 10 to be placed in the open condition. As shown, the spine 16 is creased to adapt to the width of the pages. The spine 16 extends between the line 54 shown in Figure 7 and is not attached to the remainder of the book in this area.

[0018] An additional slot or crease 56 is formed in the spine 16 in the front page 14 side along the entire length thereof. When the book 10 is opened, the spine 16 bends at the crease 56 and folds over on itself to allow the book to lay open flat on a planar surface. Thus, the book 10 may serve as a substantially level surface for the pop-up elements 30, removable forms 32 and articles 28 placed on the pages of the diorama.

[0019] In Figure 7 there is illustrated another embodiment of the present invention with similar elements denoted with primes (''). The book 10' is similar to book 10 with the exception of the location of the extended lip 22' of the back cover 14' and the placement of the container 24' thereon. In this embodiment, the lip 22' extends from the top or upper end of the back cover 14'. It should be understood that the lip 22' should extend from another portion of the back cover or could be omitted.

[0020] In Figures 8 and 9, there is illustrated another embodiment of the present invention with similar elements denoted with double primes (''). The book 10'' is similar to the book 10 with the exception of the construction of the container 60. In this embodiment, the container 60 removably attached to the extended lip 22''. The container 60 includes a top wall 62. Spaced pockets 64 for holding articles 28'' are formed in the top wall 62. The pockets 64 are formed as outwardly extending bulges in the top wall 64 and are shaped to conform to the shape of the articles 28''. An underturned peripheral flange 66 extends from each of the three sides of the top wall 62. The flange 66 forms a channel 68 in the underside of the container 60. The channel 68 is sized to engage the edge of the extending lip 22'' to locate the container 60 thereon.

[0021] The container 60 can be secured to the extending lip 22'' in any suitable manner, such as with mechanical fasteners, staples or adhesive bonding. The upper surface of the extending lip 22'' holds the articles 28'' within the pockets 64 while the container 60 is secured thereto. The corners 70 of the flange 66 may be relieved to prevent stress concentrations and/or to eliminate sharp surfaces. It is contemplated that the container can be formed from a translucent plastic material which facilitates viewing of the articles 28'' within the pockets

64 and the formation of the underturned flange 66.

[0022] The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof and, accordingly reference should be made to the appended claims, rather than to the foregoing specification, as indicating the scope of the invention.

Claims

1. A book comprising:
 - a page comprising a first sheet and a second sheet, the face of the first sheet being attached to the face of the second sheet;
 - a removable portion formed in the first sheet.
2. The book according to claim 1, wherein illustrative matter is printed on at least one face of the first or second sheet.
3. The book according to claim 2, wherein the illustrative matter is printed on at least one face of each of the first and second sheets.
4. The book according to claim 2, wherein the illustrative matter is printed on each face of the first and second sheets.
5. The book according to any one of claims 1 to 4, wherein the removable portion comprises a pop-up element which includes a creased portion for permitting the pop-up element to obtain a three-dimensional configuration.
6. The book according to any one of claims 1 to 5, wherein illustrative matter is printed on the pop-up element.
7. The book according to any one of claims 1 to 6, further comprising a cover having an extended lip, and wherein a container is provided for holding an article, the container being located on the lip.
8. The book according to claim 7, wherein the container comprises a top wall, an underturned peripheral flange extending from an edge of the top wall, and a pocket formed in the top wall for holding the article.
9. The book according to any one of claims 1 to 8, wherein a crease is formed on a binding of the book, the crease permitting the open book to lay flat on a planar surface.
10. The book according to any one of claims 1 to 9, wherein illustrative matter is printed on a portion of the second sheet which is overlaid by the remova-

ble portion.

11. The book according to any one claims 1 to 10, wherein the page is fabricated from a paper material having a weight from about 450g to about 500g.
12. A book as claimed in any one of claims 1 to 11, comprising:
 - a cover; and
 - a plurality of pages bound within the cover.

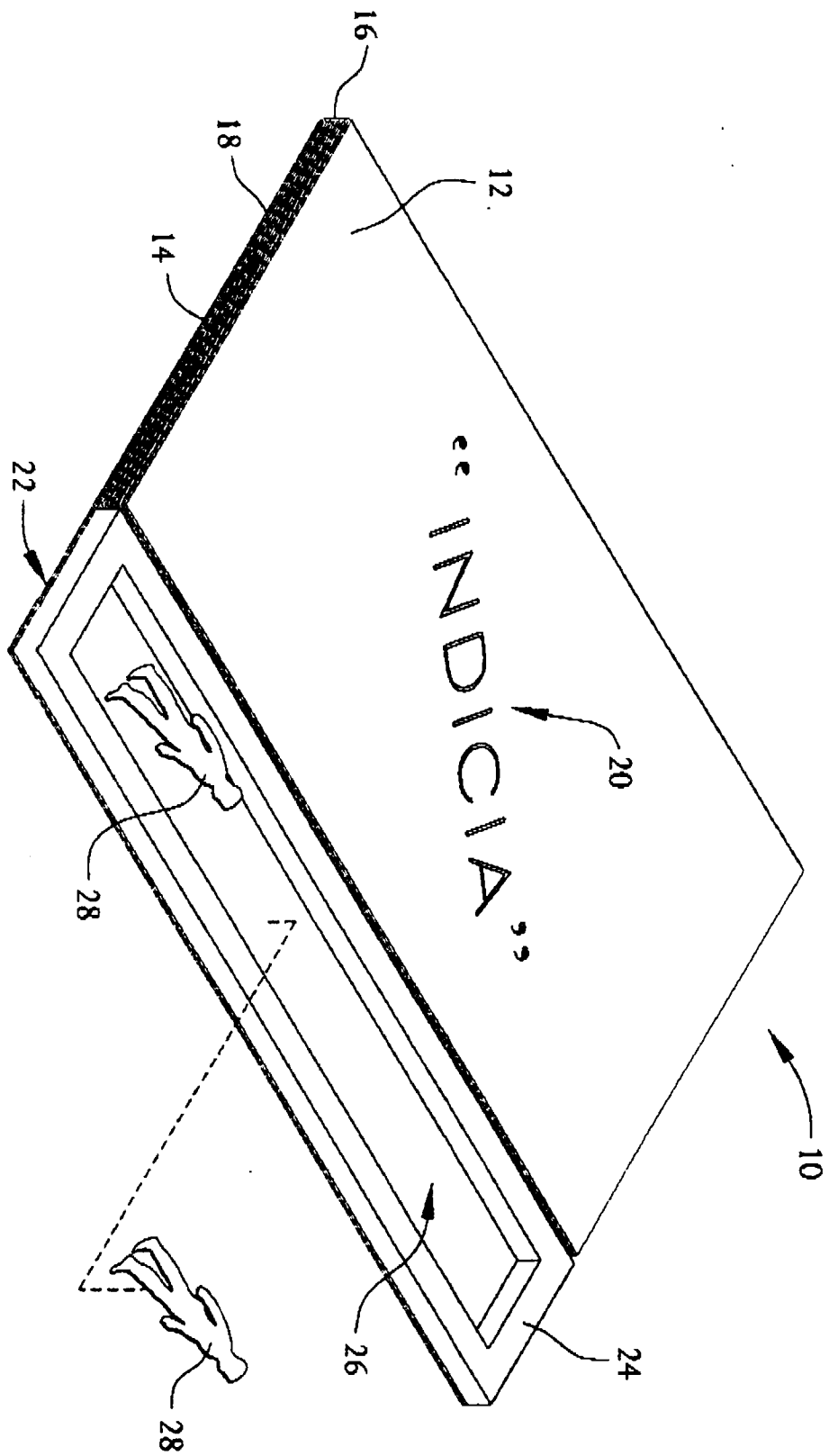


FIG. 1

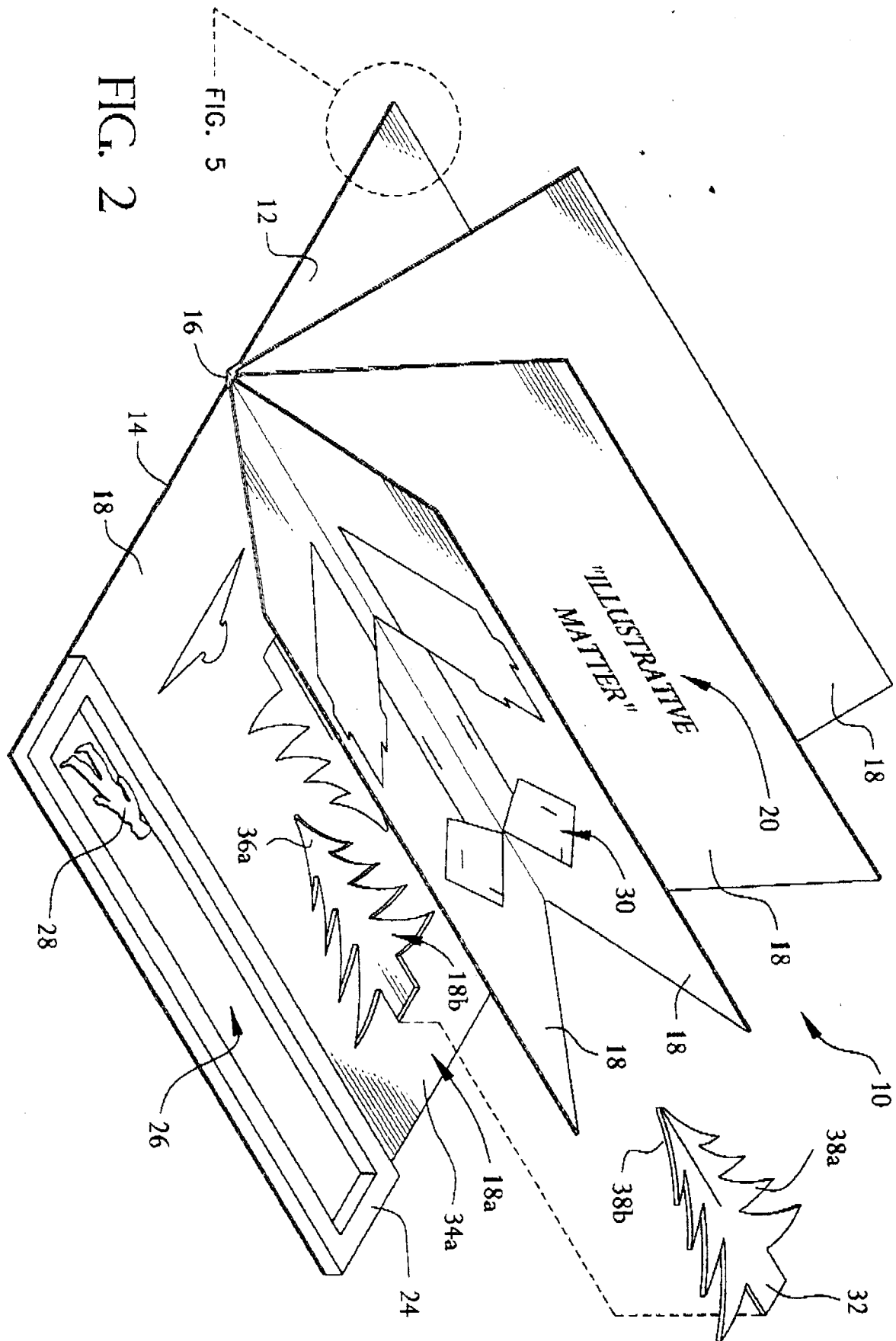


FIG. 2

FIG. 5

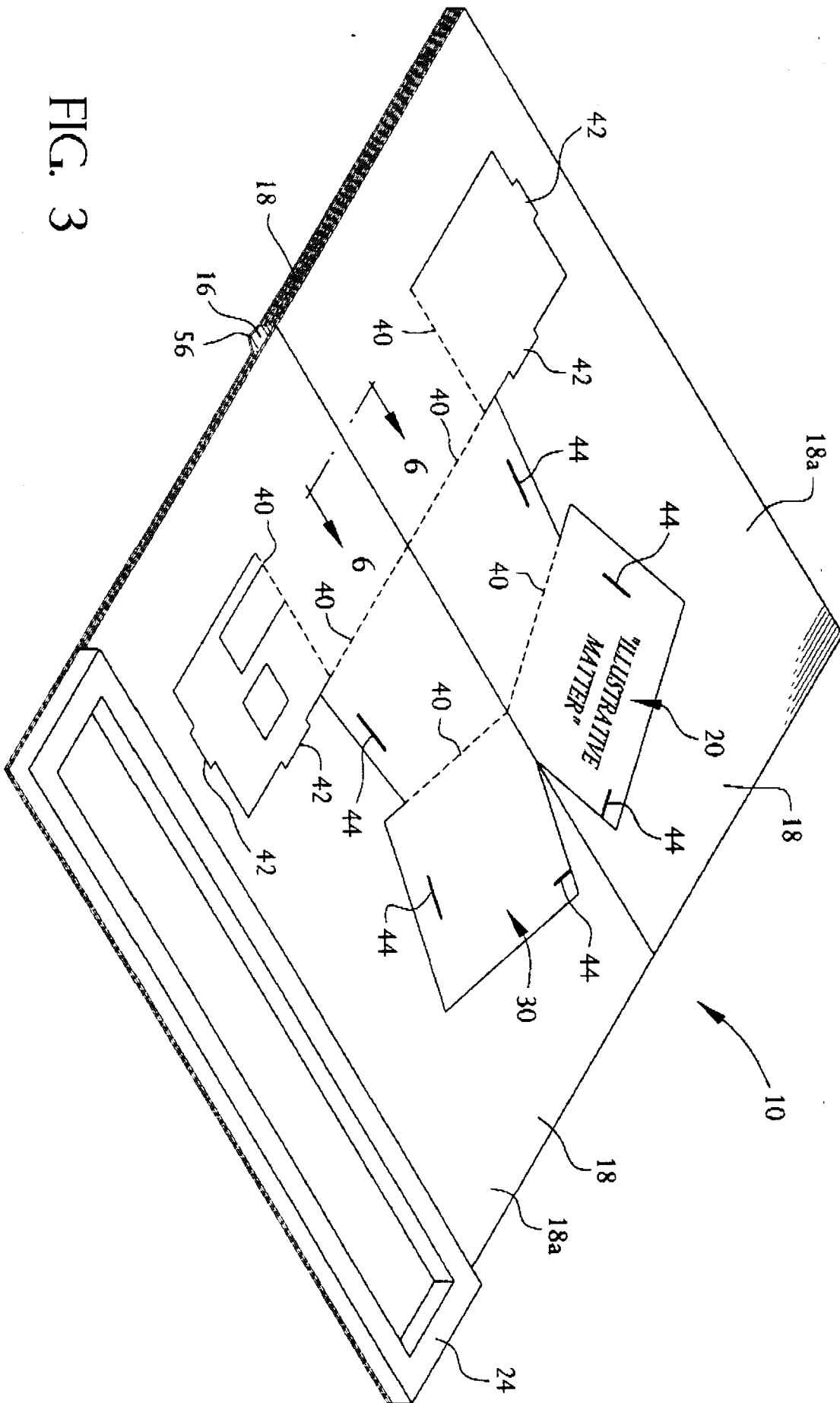


FIG. 3

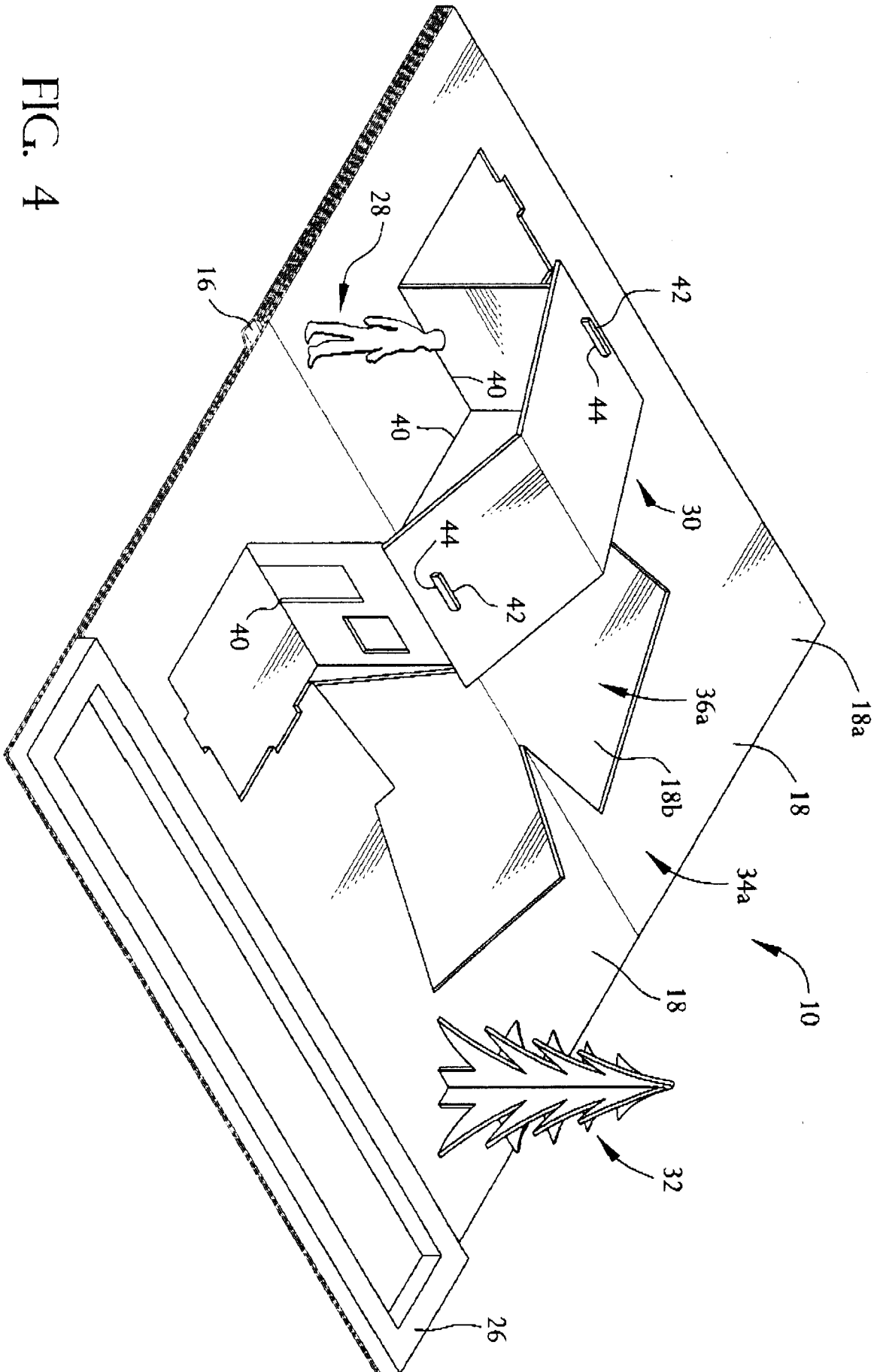


FIG. 4

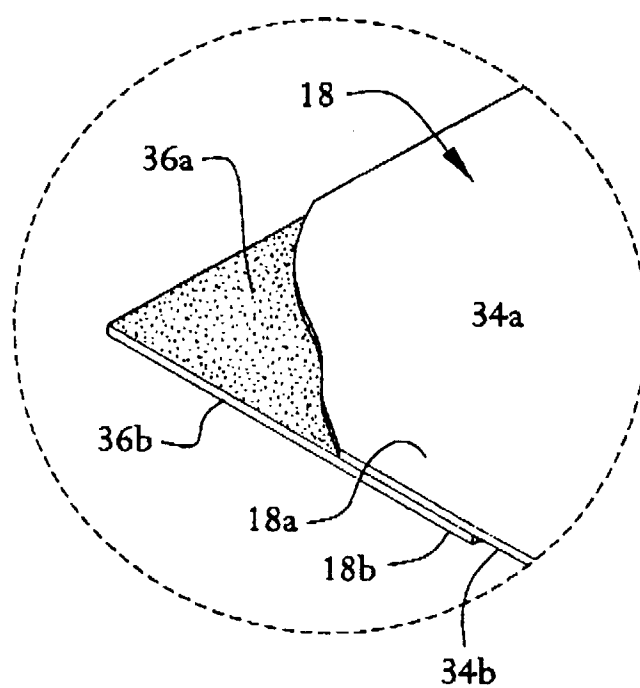


FIG. 5

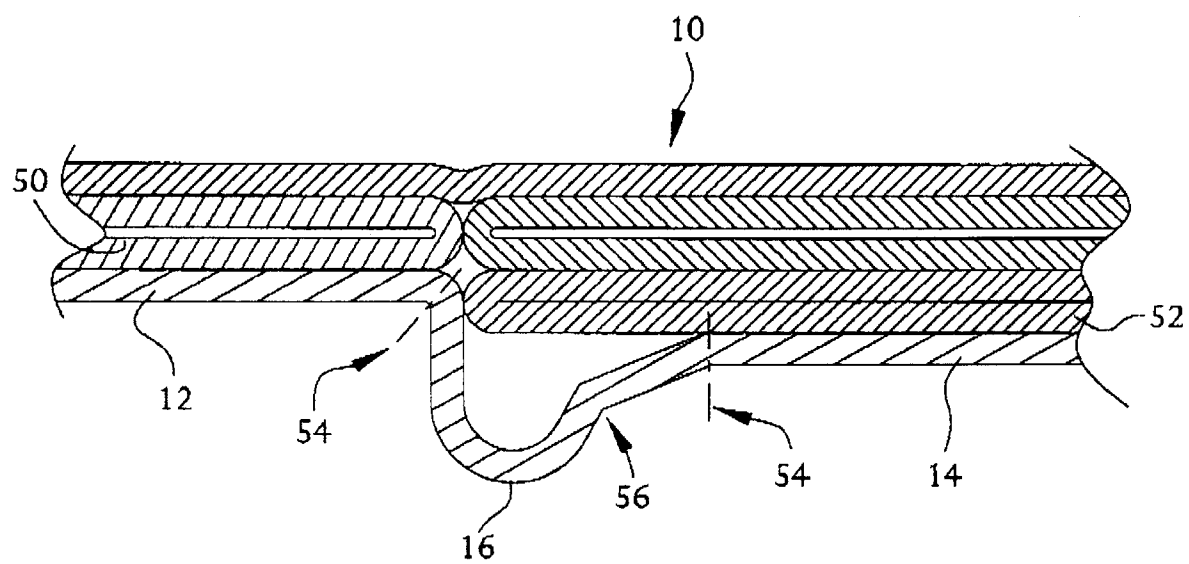


FIG. 6

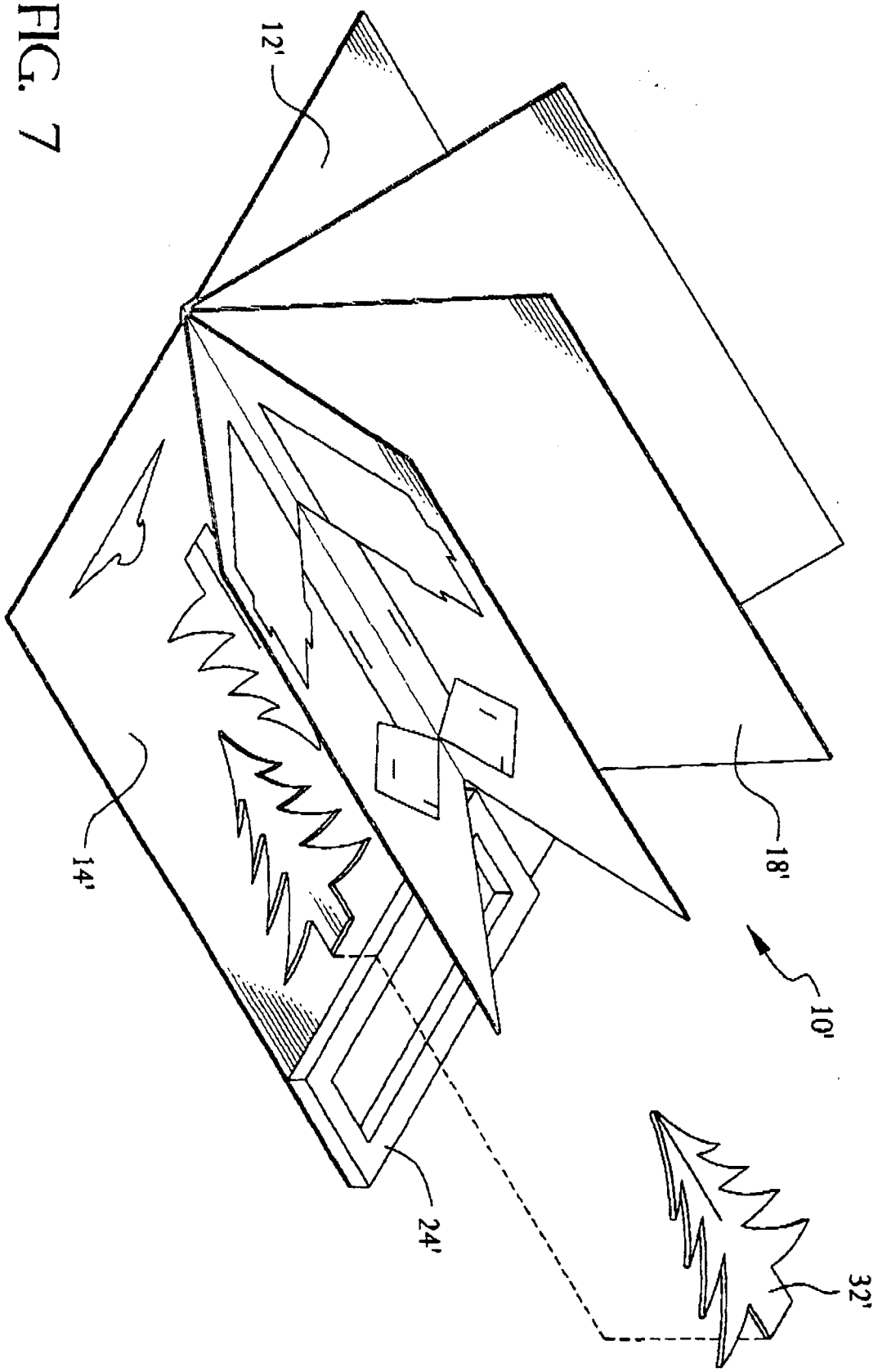


FIG. 7

