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(54) **3d jigsaw puzzle**

(57) A three dimensional jigsaw puzzle has pieces with protrusions and cutouts. The protrusions and cut-

outs of every two adjacent pieces correspond to each other. Each piece is a tangential area of a sphere so that when the pieces are all combined, the sphere is formed.

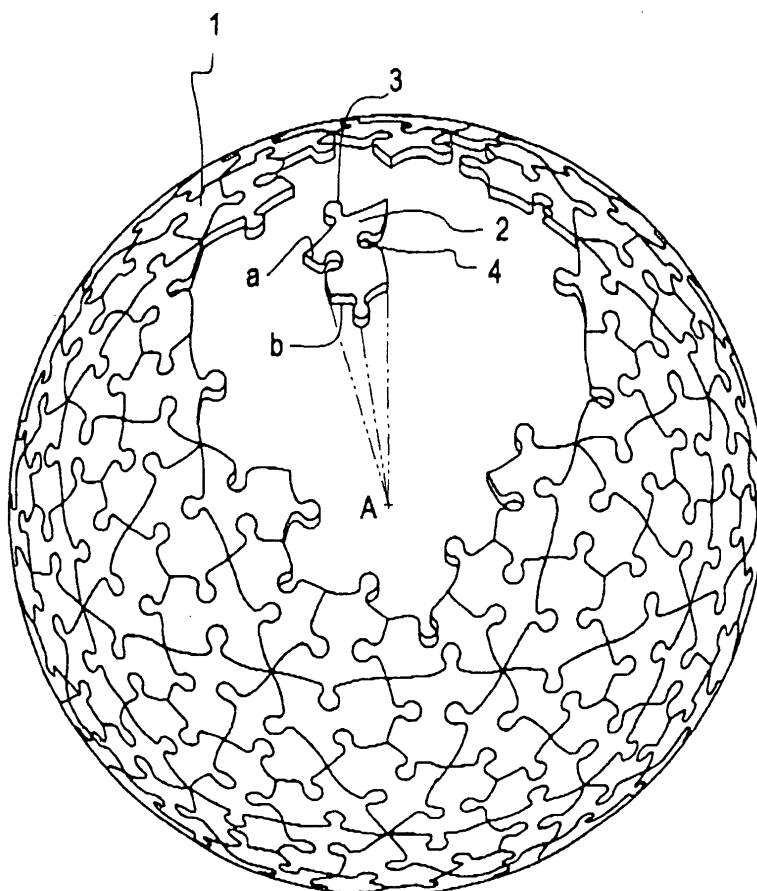


FIG.2

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Description

1. Field of the Invention

[0001] The present invention relates to a three dimensional jigsaw puzzle, and more particularly to a three dimensional jigsaw puzzle composed of pieces and a hollow interior. Each piece has protrusions and cutouts respectively corresponding to the cutouts and protrusions of an adjacent piece so as to form a complete pattern when the jigsaw puzzle is completed.

2. Description of Related Art

[0002] Jigsaw puzzles are popular toys for children and even adults. Conventional jigsaw puzzles generally have planar pictures which have cut up into pieces, and then the pieces are fitted together to recreate the pictures again. The quantities of pieces in puzzles can be varied by manufacturers so that assorted difficulty levels in doing the puzzles are achieved in order satisfy consumer demands.

[0003] There have been some jigsaw puzzles invented that are called three-dimensional puzzles. One of the three dimensional puzzles is composed of cubic pieces that each have six surfaces painted with various patterns and that can be recombined to form six pictures corresponding to the respective surfaces of the cubic pieces.

[0004] Another three-dimensional jigsaw puzzle has a dimensional frame being composed of horizontal brackets and vertical brackets. The brackets have a plurality of apertures defined therein. Puzzle pieces with poles can be mounted on the brackets by the poles inserted in the apertures to form a three-dimensional shape.

[0005] In a third three-dimensional jigsaw puzzle, there are a plurality of sheets painted with the same picture. The sheets are cut according to the pieces of the jigsaw puzzle. The pieces are respectively adhered with the sheets having different numbers. Whereby, the pieces have different thickness and the picture is recreated by the pieces so as to present a three-dimensional effect.

[0006] However, all the conventional jigsaw puzzles present only two-dimensional pictures combined by the pieces. There is no true three-dimensional effect in the jigsaw puzzles.

[0007] In order to provide a three dimensional effect, the invention provides an improved jigsaw puzzle to mitigate and/or obviate the aforementioned problems.

[0008] The primary objective of the invention is to provide a jigsaw puzzle which has a true three-dimensional effect and uses no auxiliary assistance, such as a bladder inside the three dimensional jigsaw puzzle so that the difficulty of assembling the jigsaw puzzle is increased not only by the quantity of the pieces, but also by forming and maintaining the 3D jigsaw puzzle.

[0009] Other objects, advantages and novel features of the invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

Fig. 1 is a plan view showing the 3D jigsaw puzzle; and

Fig. 2 is a perspective view of the 3D jigsaw puzzle in Fig. 1, wherein a portion of the pieces is removed to show that the 3D jigsaw puzzle is completely hollow.

[0010] With reference to Figs. 1 and 2, a three-dimensional jigsaw puzzle in accordance with the invention is a sphere (1) composed of pieces (2). Each piece (2) has a unitary thickness and has protrusions (3) and cutouts (4). The protrusions (3) and cutouts (4) of every two adjacent pieces (2) are formed to correspond to each other and each of the pieces (2) has side faces each having an upper contour and a lower contour, protrusions (3) and cutouts (4), wherein a radius of the sphere (1) passes through the lower contour first and then upper contour, so that after combination of all the pieces (2), the sphere (1) is recreated. That is, from Fig. 2 of the present invention, each piece (2) has side faces each defined by an upper contour (a) and a lower contour (b), wherein a radius from the center of the sphere (1) passes through the lower contour (b) first and then the upper contour (a).

[0011] In another embodiment, each of the pieces (2) is able to be painted with a portion of a picture so that when combining the sphere (1), each piece (2) provides a clue to the player to form the entire sphere (1).

[0012] It is to be understood, however, that even though numerous characteristics and advantages of the present invention have been set forth in the foregoing description, together with details of the structure and function of the invention, the disclosure is illustrative only, and changes may be made in detail, especially in matters of shape, size, and arrangement of parts within the principles of the invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed

Claims

1. A three dimensional jigsaw puzzle comprising:

a sphere (1) composed of multiple pieces (2), each piece (2) having side faces each defined by an upper contour and a lower contour, protrusions (3) and cutouts (4), wherein a radius of the sphere (1) passes through the lower contour and the upper contour, wherein the protrusions (3) and cutouts (4) of every two adjacent pieces (2) correspond to each other so that when all the pieces are combined, the sphere

(1) is recreated.

2. The three dimensional jigsaw puzzle as claimed in claim 1, wherein each of the pieces (2) has a unitary thickness.

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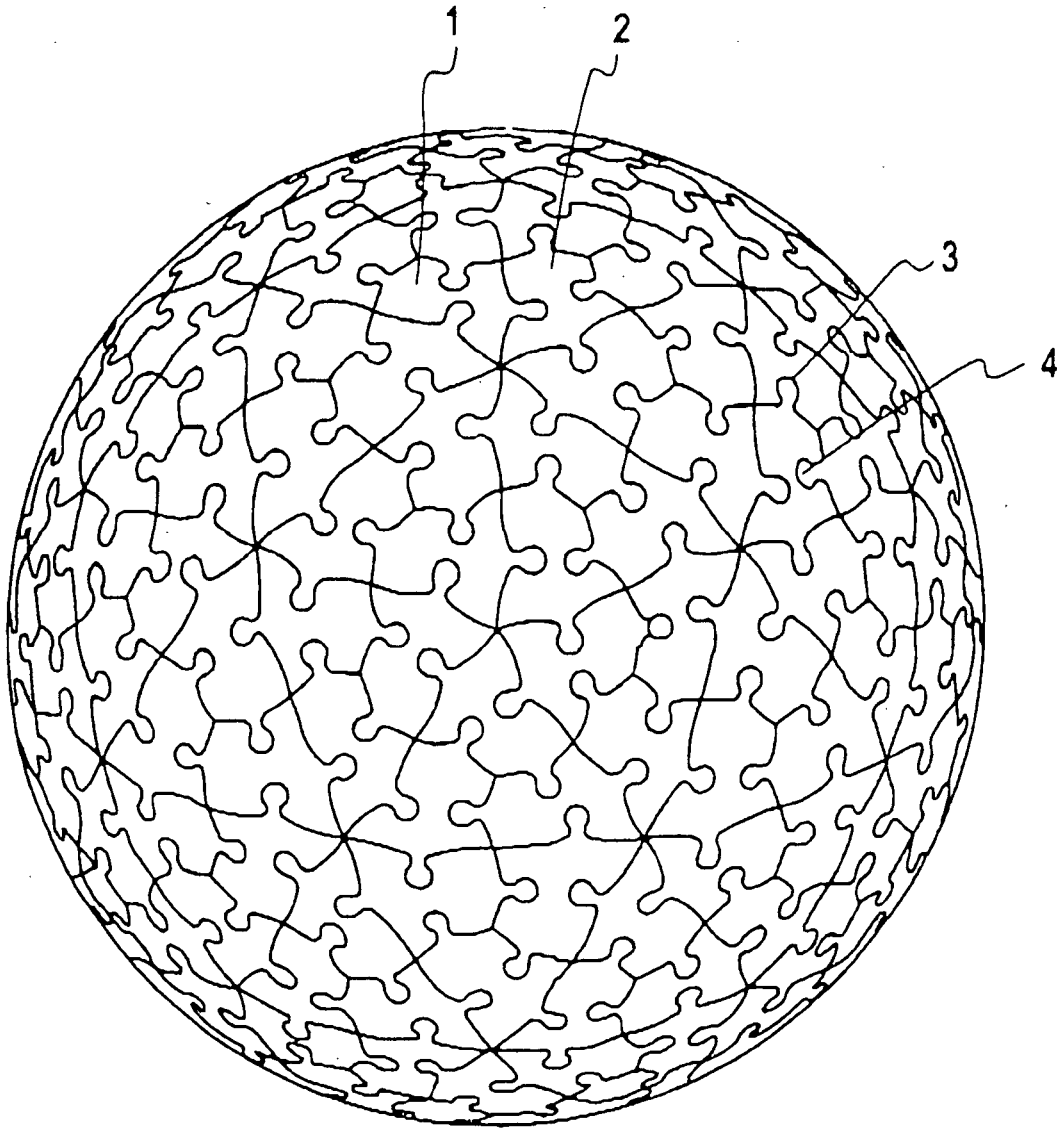


FIG.1

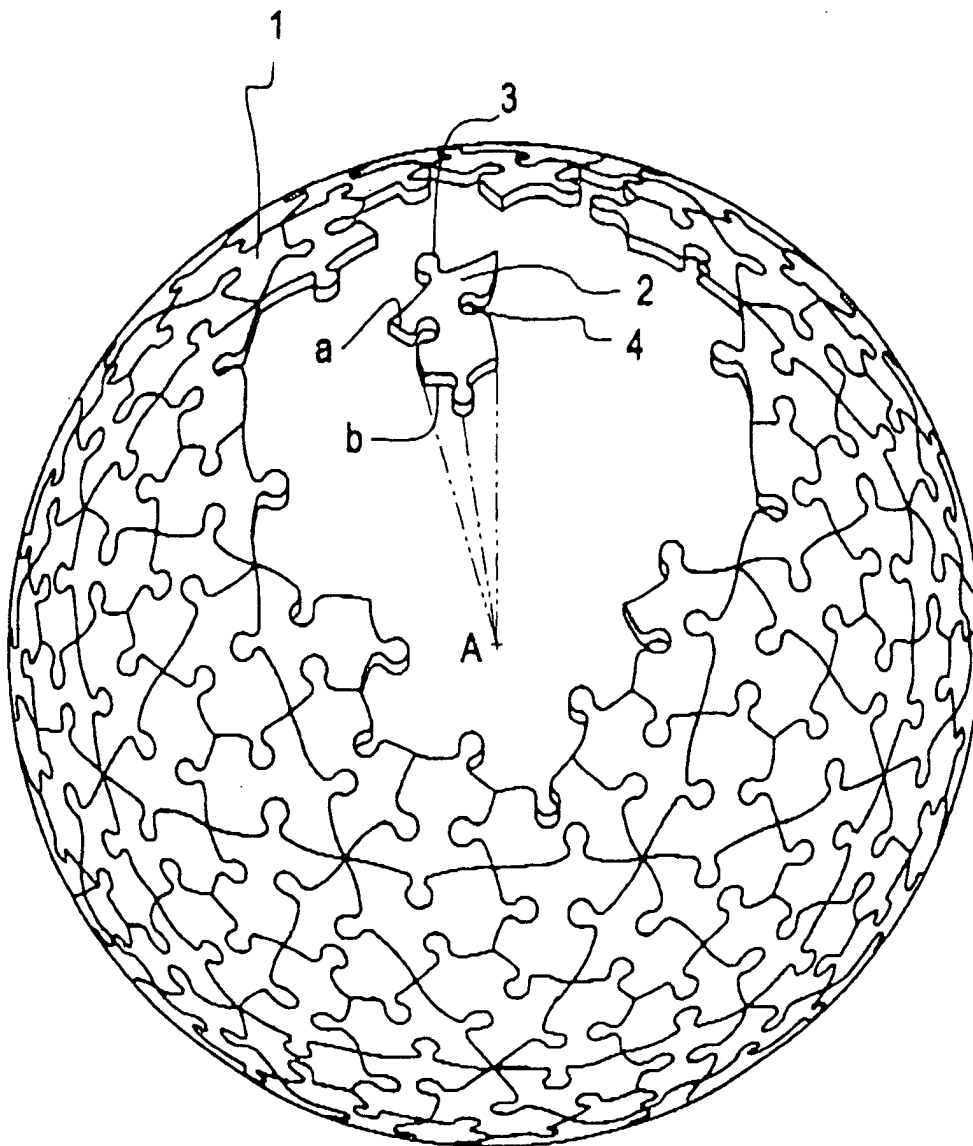


FIG.2



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EUROPEAN SEARCH REPORT

Application Number
EP 02 01 2955

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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 2 October 2002	Examiner Lucas, P
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 02 01 2955

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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