

1 524 005

- (21) Application No. 28097/77 (22) Filed 5 Jul. 1977
- (31) Convention Application No. 703516 (32) Filed 8 Jul. 1976 in
- (33) United States of America (US)
- (44) Complete Specification Published 6 Sept. 1978
- (51) INT. CL.² A63F 9/08
- (52) Index at Acceptance A6H 12C

(19)



(54) ROTARY PUZZLE CONSTRUCTION

(71) I, VOJKO SMILIN, a citizen of the United States of America, residing at 375 East Mosholu Parkway North, Bronx, New York 10467, United States of America, do hereby declare the invention for which I pray that a patent may be granted to me and the method by which it is to be performed, to be particularly described in and by the following statement:-

**ROTARY PUZZLE CONSTRUCTION
ABSTRACT OF THE DISCLOSURE**

A rotary puzzle characterized by two substantially identical translucent panels, held together by a plurality of securing eyelets and having at the centers thereof a clear circular area through which indicia may be viewed on either side. The front and rear panels are configured in a scalloped fashion to allow accessibility to a plurality of discs which are rotatably mounted between the panels on pivotal eyelets such that the discs overlap one another. Each of the discs depicts, on either side, several segments of larger indicia. By engaging the discs at one of the scalloped areas along the edges of the panels, rotating them, and properly placing them, a complete composite indicia will be formed by the segmented indicia of the four discs at the center of viewing areas.

**ROTARY PUZZLE CONSTRUCTION
BACKGROUND OF THE INVENTION**

Jigsaw puzzles traditionally are comprised of several loose pieces, which when fitted together properly, complete a picture or object. As the pieces are separate and free, parts are easily lost or misplaced. The present invention, although employing several parts that correlate to solve the puzzle in many solutions, is enclosed, has no loose parts, and therefore creates no possibility of lost parts.

The concept of rotary games is known, however, traditionally they have taken the form of calculators, and other such toys, in which one of two base panels has small

windows or viewing areas in which indicia may be viewed, such that the indicia in one window corresponds to the indicia appearing in the other window in some predetermined relationship.

SUMMARY OF THE INVENTION

Briefly stated, the invention contemplates the provision of an amusement puzzle in which the rotation of four overlapping discs will align portions of an image and form a complete picture in centrally disposed clear viewing areas in the centers of two superimposed translucent panels. Said viewing areas are independent of one another, the relationship between parts established only between the indicia of the discs. The puzzle is presented in a "scrambled" condition to the individual attempting to solve the puzzle. The user then rotates the discs in a selective manner, seeking to so rotate the discs that a finite intelligible composite indicia is presented within the viewing orifice, thereby solving the puzzle.

**BRIEF DESCRIPTION OF THE
DRAWING**

In the drawing, to which reference will be made in the specification, similar reference characters have been employed to designate corresponding parts throughout the several views.

Figure 1 is a front elevational view of an embodiment of the invention.

Figure 2 is a front elevational view of the embodiment, with the one panel removed.

Figure 3 is an elevational view of disc 15 as removed from Figure 2.

Figure 4 is a side elevational view as seen from the right side of Figure 1.

**DETAILED DESCRIPTION OF THE
DISCLOSED EMBODIMENT**

In accordance with the invention, the device, generally indicated by reference character 10, comprises broadly: two translucent panels 11 and 12 enclosing four overlapping discs 13, 14, 15 and 16 whose indicia

50

55

60

65

70

75

80

85

90

22, 23, 24, 25, 26 and 27 may be viewed through an arcuately shaped orifice 17 in the center of each of the panels. The panels may be made of translucent plastic or other materials through which the discs and their indicia may be viewed.

The enclosed discs 13, 14, 15 and 16 are rotatably mounted such that their centers, as formed by holes 36, 37, 38 and 39 and mounted on pivotal eyelets 18, 19, 20 and 21, are closer to each other than the diameters of said discs, thus overlapping the discs. Disc 13 overlaps disc 15, disc 15 overlaps disc 16, disc 16 overlaps disc 14, and disc 14 overlaps disc 13. To allow for free rotation, a clearance area 40 is provided. Each of the discs 13-16 inclusive, displays several segmented indicia 22-27, inclusive, each of which represents a segment of a larger composite image. Such indicia are on both sides of each disc so that two puzzle areas may be completed, depending on the format of the image to be presented in a particular rotary puzzle. The present invention may therefore be manufactured in large quantities and low cost, since four discs carry at least two distinct puzzles. As shown in the drawing, six indicia are selectively viewed on either side of the disc. Therefore, there are a total twelve complete indicia to be formed. As illustrated, there are three larger indicia 22, 24 and 26 and three smaller indicia 23, 25, 27 on each side, arranged so that every other indicia is larger. The larger indicia 22, 24 and 26 are parts of a complete composite image which fill the viewing areas 17 entirely. The smaller indicia 23, 25, 27 are parts of composite images which form a smaller circle within the viewing area 17. Pivotal eyelets 18, 19, 20, 21 serve as securing eyelets as well for panels 11 and 12 and, if desired, may be removed so that new discs may replace those enclosed between panels 11 and 12.

Along the periphery of panels 11 and 12, grooved or scalloped areas 28, 29, 30 and 31, are formed so that each disc 13, 14, 15, 16 may be tactually engaged by the user's fingers.

The device may be formed from fibrous materials or synthetic resinous materials depending upon consideration of size, cost, and durability.

I wish it to be understood that I do not consider the invention limited to the precise details of structure shown and set forth in this specification, for obvious modification will occur to those skilled in the art to which the invention pertains.

WHAT I CLAIM IS:-

1. An amusement puzzle comprising first and second planar panels, at least one of said panels including a generally centrally disposed through opening; a plurality of means interconnecting said panels in juxtaposed parallel relation to define an interstice therebetween; a plurality of generally circular planar discs each mounted for pivotal rotation on one of said plurality of interconnecting means, in such manner that peripheral portions of each disc project outwardly of said interstice for individual selective manual manipulation; said discs being disposed within said interstice in mutually overlapped relation to selectively position portions of a planar surface, that beneath said opening in said one of said panels; said portion of said planar surfaces each having a portion of a composite image displayed thereon, whereby upon the movement of each of said discs to display predetermined portions, beneath said opening in said one of said panels, said composite image is formed.

2. Structure in accordance with Claim 1, further characterized in one of said panels having a generally centrally disposed opening thereon, and one planar side of each of said disc selectively displays predetermined portions of multiple composite images in said opening.

3. Structure in accordance with Claim 1, further characterized in each of said panels having a generally centrally disposed opening therein, and each planar surface of each of said discs selectively displays predetermined portions of multiple composite images in each opening.

4. Structure in accordance with Claim 1, further characterized in a certain of said multiple composite images being of greater area than others.

For the Applicants,
D Young & Co.,
Chartered Patent Agents,
9 & 10 Staple Inn,
LONDON WC1V 7RD

This drawing is a reproduction of the Original on a reduced scale

