United States Patent

Wolf

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[54] GAME METHOD INVOLVING COMPETITIVE ARRANGING OF GROUPED PIECES INTO POLYHEDRIC FORM

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[52] **U.S. Cl.** .....**273/157 R,** 46/26

[51] **Int. Cl.** **A63f 9/08**

[58] **Field of Search** .....273/156, 157 R; 46/25, 26

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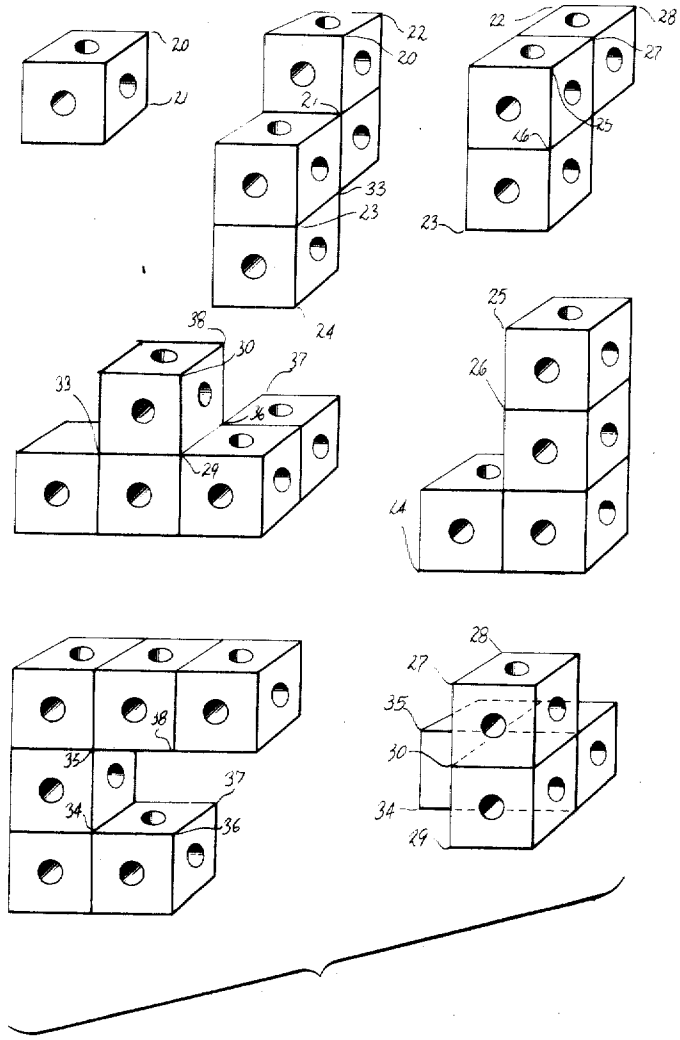
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[57] **ABSTRACT**

A method of playing a game comprising two sets of pieces each set consists of twenty-seven cubes having a hole in each of its six faces. The cubes are interengageable to form building groups of two or more cubes. These groups are selectively constructed by opposing players in puzzle form as to permit the groups of each set to be assembled into a large cube. The groups of each set are exchanged by opposing players for purposes of competitively forming the cube from the opposing players building groups, thereby solving the puzzle.

2 Claims, 4 Drawing Figures



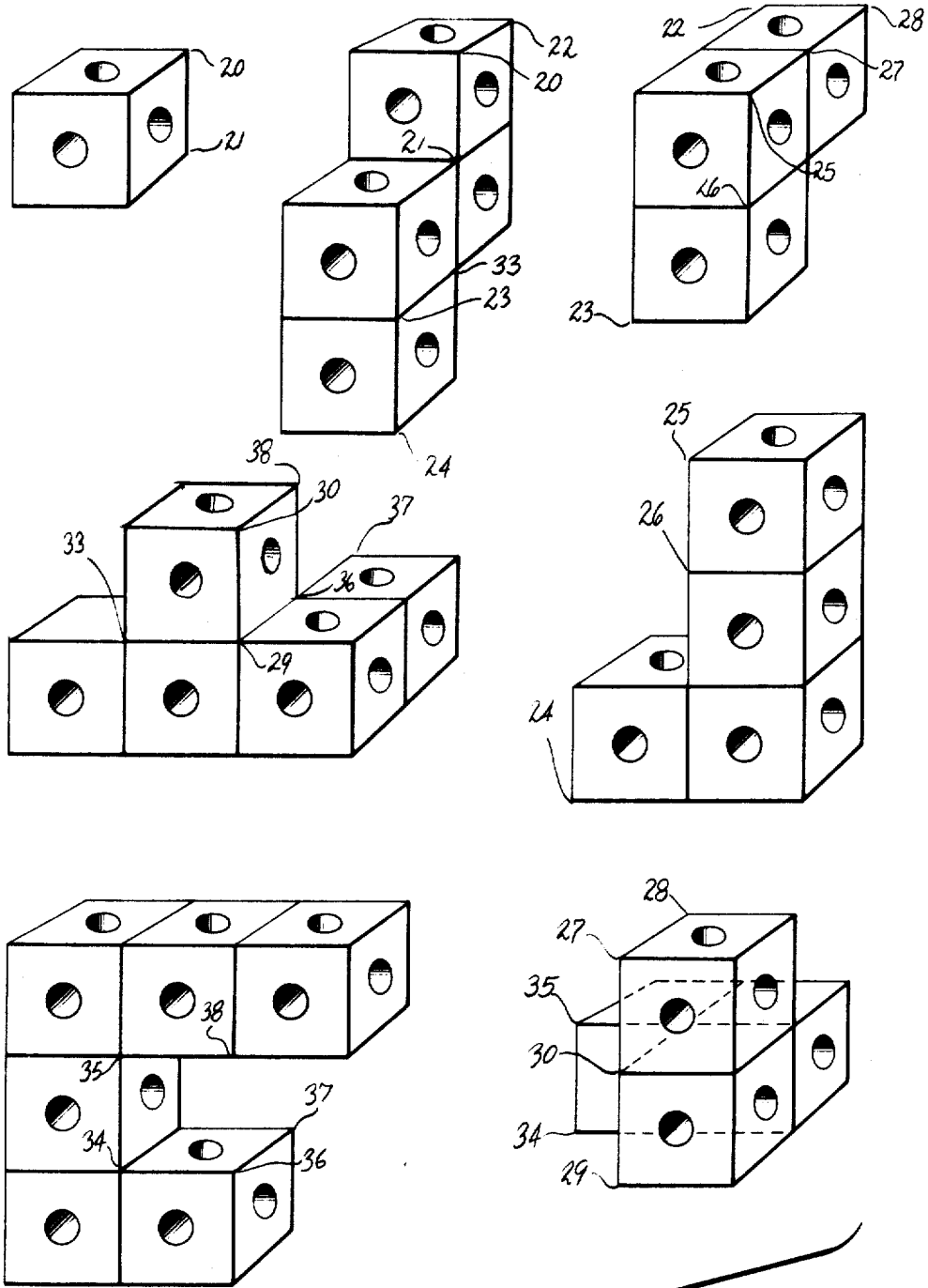


FIG. 4

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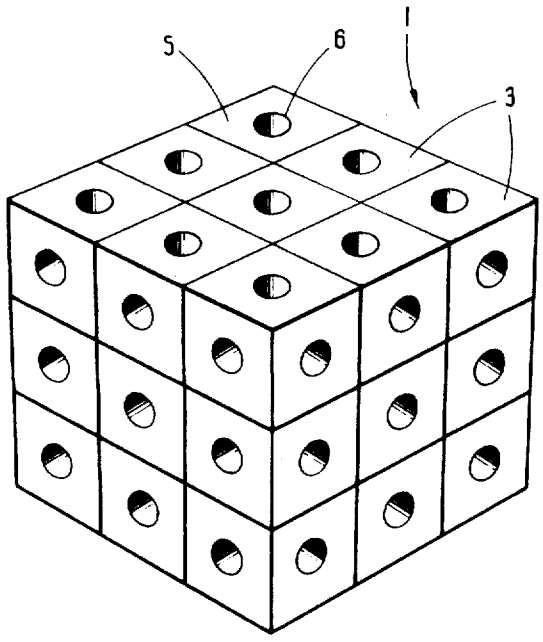
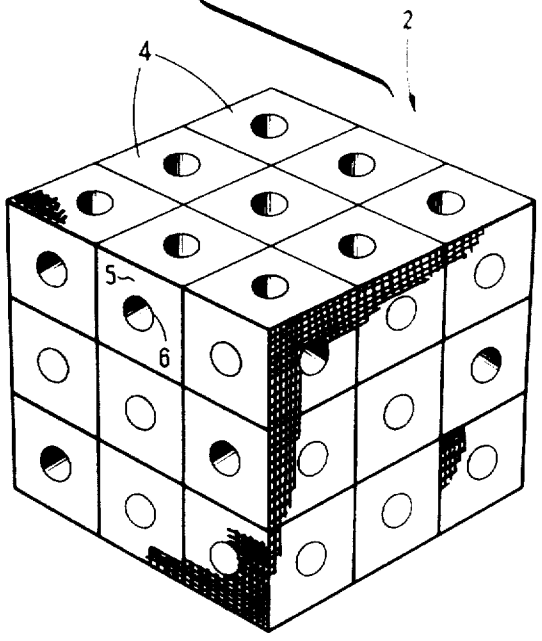


FIG. 1



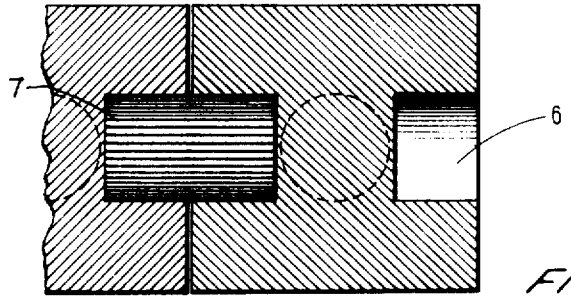


FIG. 3

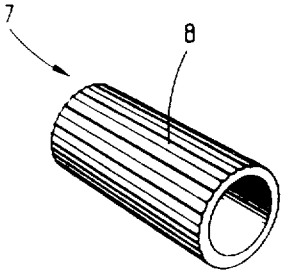


FIG. 2

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GAME METHOD INVOLVING COMPETITIVE ARRANGING OF GROUPED PIECES INTO POLYHEDRIC FORM

SUBJECT MATTER OF THE INVENTION

The present invention relates to a method of playing a puzzle solving game.

BACKGROUND OF THE INVENTION

There are currently available a wide variety of three dimensional games in which various polyhedric shapes are provided for purposes of being assembled into a larger polyhedric shape. Typical of these puzzles are those commonly marketed under the trademarks "Instant Insanity" and "Soma". These games essentially provide a fixed number of building blocks which must be assembled by a player into a preselected configuration. These games thus provide only a puzzle solving condition. Some of them, such as Soma, can be solved in one of many different ways. They do not, however, lend themselves to a game system in which competing players create their own puzzles for solution by opponents. Nor do they provide a game puzzle in which players compete directly with each other, with the game designed to test relative skills.

DESCRIPTION OF THE INVENTION

The present invention provides a game or puzzle in which opposing players compete with one another. Another object of the present invention is to provide a game or puzzle in which opposing puzzles may be created by opposing players for solution by each other. A further object of the present invention is to provide a game puzzle in which players may create one of a number of different puzzles from a fixed number of pieces for solution by an opponent.

A further object of the present invention is to provide an improved game or puzzle formed of simple pieces of uniform size and dimension capable of being easily and inexpensively manufactured. A further object of the present invention is to provide a game in which players may readily vary the rules and adapt pieces for a variety of purposes. A further object of the present invention is to provide an improved puzzle and method of interengaging game pieces for use in a puzzle wherein the pieces are temporarily interengaged.

A further object of the present invention is to provide an improved game or puzzle consisting of a plurality of polyhedric game pieces preferably cubical in shape. Means are provided to divide the game pieces into at least two visually distinguishable sets with each set having an equal number of pieces. Means are also provided for temporarily engaging the pieces into a plurality of building groups with these building groups being capable of being formed or comprised of a different number of game pieces arranged contiguously into different polyhedric arrays. These groups are also capable of being assembled into a contiguous polyheric configuration of greater size than the polyhedric array. Preferably when cubes are used for the game pieces, the preferred polyhedric configuration is a large cube formed of 27 pieces in contiguous array.

BRIEF DESCRIPTION OF DRAWINGS

These and other objects of the present invention will be more clearly understood when considered in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of the embodiment of the pieces in one form of the invention formed into a pair of contiguous polyhedric configurations;

FIG. 2 is a perspective view of the interengaging means for the pieces illustrated in FIG. 1;

FIG. 3 is a fragmentary cross-sectional view of a pair of interengaged pieces showing the relationship of the pieces and the interengaging means; and

FIG. 4 is a perspective view of the pieces of FIG. 1 arranged in building groups having from one to six pieces in each of the building groups with these building groups adapted to be assembled into a polyhedric configuration that is a cube in shape.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENT

The present invention is described in the embodiment of a game utilizing game pieces which are cube in shape. Game pieces may be assembled into cubic polyhedric configuration in accordance with the detailed description hereafter. However, it should be understood that variations of the game are contemplated in which other polyhedric configurations may be utilized and in which other shapes of game pieces may be employed. The present invention is described in terms of a preferred embodiment.

Referring to FIG. 1 there is shown a pair of sets 1 and 2 each comprising a plurality of game pieces. The game pieces in the preferred embodiment each consist of polyhedric members 3 of game set 1 visually distinguishable from the polyhedric members 4 of game set 2. The pieces 3 may be distinguished from the pieces 4 by forming them of different type of materials. Thus, for example, the game pieces 3 may be made of wood painted white while those of game pieces 4 may be made of wood painted black. Obviously, other color combinations as well as materials may be used to distinguish these two sets.

The game pieces 3 and 4 except for visual distinguishing means as described above are preferably of identical polyhedric shapes. In the preferred embodiment, these pieces are cubical in form. They may each consist of a one inch cube. Hole 6 is formed in the face 5 of each of these cubes. The hole 6 may be of any suitable dimension but, for example, may consist of a cylindrical hole ⅜ inch in diameter and ⅜ inch in depth. The holes are centrally located in each of the faces 5 of the cubes so that two cubes may be arranged with butting contiguous faces and with the holes of such faces in axially aligned relationship. The game pieces in each set may be assembled into groups of different arrays of pieces by means of interengaging means best illustrated in FIGS. 2 and 3. The preferred embodiment of the interengaging means, comprises an elastomeric resilient compressible tubular element or member 7 having a series of grooves and ridges 8 extending the length of the outer wall of the member 7. The member 7 may be made of rubber or plastic and has an outer diameter that is substantially the same or slightly greater than the diameters of the holes 6 so that member 7 may be inserted into the holes and be detachably engaged thereby. For this purpose the wall of each member 7 should be flexible and capable of being squeezed for insertion in the hole. Each member has a length that is twice or preferably slightly less than twice the length or depth of the holes 6 so that interengaging member 7 may be positioned with one half of each of the aligned holes 6 of two game pieces that have been arranged with butting faces.

A sufficient number of members 7 are provided to permit a wide variety of combinations in each set. No more than 50 would ordinarily be required for both sets since under ordinary playing conditions approximately 25 to 40 members would be used.

In playing the game each of two players select one of the sets and creates a puzzle without the opposing player observing. Generally the puzzle may be created by starting with the 27 pieces of the set disengaged from each other and from members 7. For greatest convenience the player should initially arrange these pieces temporarily in the configuration of the puzzle solution. Thus for example if the pieces 3 are to be created into building groups that may thereafter be arranged into a cube, the player should preassemble these loose pieces into a cube with three pieces on each edge. The player then removes from the cube the number of pieces he intends to create into a building group, taking care to remove pieces from adjacent positions in the cube that form the desired building groups. The player then joins the pieces together to form a group by inserting opposite ends of the members 7 into

holes **6** of different pieces to abut them into the desired shape of a building group. Thus, for example a building group **10** as illustrated in FIG. **4** may be formed with four pieces **11, 12, 13** and **14** each abutting an adjacent piece to form an L shaped building group. A wide variety of such groups may be built of varying members or pieces. It is calculated that eleven different shaped groups of four or less pieces may be arranged if we include a single piece as a group. The specific number of groups created is of course a function of the number of pieces used in each group. A typical array of building groups that may be formed into a cube to solve the puzzle is illustrated in FIG. **4**. These groups may be assembled into a larger cube by interengaging or positioning groups so that the commonly marked faces **20** to **38** inclusive are positioned in facing relation.

The players exchange their building groups with one another appropriately separated one from the other. Each player then attempts to solve the puzzle of the other by reassembling the building groups created by the other into a cube. The first player to solve the puzzle of the other wins. Scoring may be kept in a variety of ways. For example the winning player may be awarded a fixed number of points or alternately may be awarded a number of points equal to the number of pieces or perhaps the number of building groups that the losing player had failed to assemble into the puzzle solution at the time the winning player had finished.

Other varients are contemplated in the game rules. For example, a losing player might challange the winner to solve the puzzle the winner had created. If the winner cannot solve the puzzle he created within a fixed period of time, as for example 30 seconds, the winner may be penalized by losing the round or otherwise.

Also contemplated are games in which the pieces assume shapes other than cubes and in which the puzzle solution, whether or not the pieces are cubes, assume other polyhedric shapes. For example, the pieces may comprise elements with rectangular faces or alternately they may be pyramid in shape. In the latter example the pyramids have equilateral faces and be arranged when in a puzzle solution to provide a larger equilaterally faced pyramid.

I claim:

1. A game method for players with a plurality of like polyhedric pieces comprising dividing said pieces into a plurality of sets for different opposing players, having opposing players each temporarily interengage a plurality of pieces into a plurality of building groups, said building groups of each player interarrangeable into a contiguous polyhedric configuration of a preselected shape, exchanging said building groups separated one from the others with the building groups of opposing players, and thereafter competitively interarranging the building groups exchanged to form said polyhedric configuration.

2. A method as set forth in claim **1** wherein said pieces are interengaged into contiguous building groups including between two and four pieces within at least one of said groups.

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