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GAME BOARD WITH DEPRESSIONS FOR STORING PLAYING PIECES

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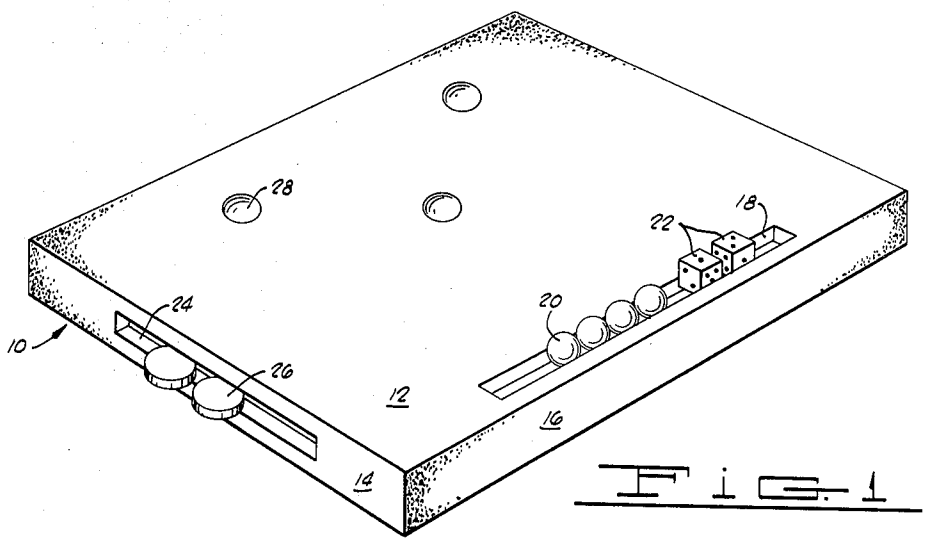


Fig. 1

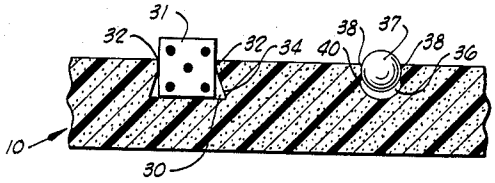


Fig. 2

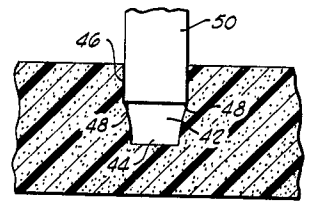


Fig. 3

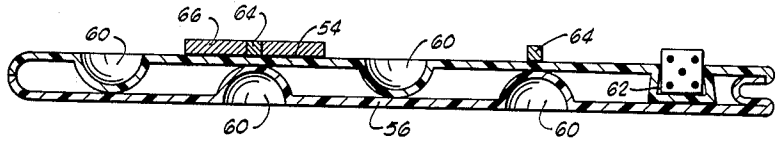


Fig. 4

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GAME BOARD WITH DEPRESSIONS FOR STORING PLAYING PIECES

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This invention relates to a game board which is made of a resilient plastic material such as foamed polyethylene, polystyrene, polyurethane or the like. More specifically, the invention relates to a game board having one or more indentations or depressions therein, which depressions are dimensioned to resiliently and frictionally engage the playig pieces used in playing the game when these pieces are pressed into the depressions.

In game boards of the type heretofore in use and employing movable playing pieces such as marbles, dice, chess men and the like, it has been the general practice to provide a separate container or chamber, for containing these playing pieces when the game is stored or not in use. This container is sometimes provided as an entirely separate or detachable piece of the game board, or in some cases, it is permanently attached to the game board by suitable adhesives, brads or the like. In other instances, a recessed or hollow cover is hinged to the board and encloses the playing pieces when it is closed. In any event, the provision of such a chamber or cover requires additional material and increases the cost of manufacture of such game boards. Moreover, the containers or covers which are usually provided do not retain the playing pieces in a fixed or immovable position so that they rattle around loosely and frequently fall out of the container and become lost.

The present invention provides a game board of the type which is utilized conjunctively with movable playing pieces, which game board is constructed entirely of a resilient plastic material and which is provided with a trough, depression, or indentation which is precisely dimensioned so that the playing pieces may be pressed into said depressions and tightly retained in fixed position therein when the game is not in use. This feature of the invention permits the playing pieces to be safety stored when the game is not in progress without the pieces rattling around and knocking against each other, thereby becoming scarred or disfigured. Similar indentations or depressions may also be formed in a surface or surfaces of the board for use in loosely receiving the playing pieces as the game is in progress. Games which utilize a number of depressions which receive the playing pieces as the game is in progress are familiar to everyone. Such games include Chinese checkers, various marble games, cribbage, etc. In the game board of the invention, these depressions are very easily and inexpensively formed as the board is manufactured by reason of the easily molded or indented nature of the resilient plastic material.

In addition to the described advantages of providing the several depressions in the plastic game board of the invention for the purpose of storing or containing the playing pieces, the all plastic construction of the board also has a number of other characteristics which allow it to achieve substantial advantages with respect to these general types of game boards as they have previously been constructed. For example, the plastic material of which the board is constructed reduces the scratching or disfiguring of a table or other surface upon which it is usually placed while the game is being played. The resiliency of the plastic material of construction, on the other hand, reduces the breakage to which such games may be subjected when they are used by rambunctious small children and, in general, increases the durability and service life of the board. The plastic construction also lends itself to certain advantages in shipment and storage.

The plastic construction is furthermore of advantage in permitting two or more surfaces of the board to be utilized for playing two or more different games thereon, and two opposed surfaces can easily be formed or laid out for two different games as the board is being manufactured. Thus, one of the surfaces may carry indicia and depressions suitable for playing one type of game, such as Chinese checkers, while the opposite side of the board is provided with other depressions and indicia for playing a second type of game, such as Aggravation or the like. Packing of the plastic game boards is very inexpensive in that it requires only a clear plastic sack or bag to slip over the board to protect it from soilage in the course of shipment. The advantage of this type of packaging, from the standpoint of advertising and display of the game board, will be apparent. Yet another advantage of the plastic game board of the invention is the facility with which instructions and various other indicia to be used or followed in playing the game may be embossed on the plastic during the molding process. Following such embossing, the embossed portion of the board may be easily painted by simply going over the bosses with a paint roller.

A preferred method of construction of the game board of the invention is to mold the board by forming in situ in the mold certain types of plastic. When the board is constructed of foamed plastic in this manner, the numerous pores in the foamed plastic make the board extremely light and buoyant so that it may even be used to play the game in a swimming pool, and so that the shipping cost is substantially reduced by reason of the extremely lightweight of the board.

A second method of construction which may be used and which also presents some particular advantages is that of forming the board by blow molding. Using this technique, a suitable gas or fluid is injected into an extruded hollow member to expand the hollow member against opposed die or mold members which are used to form the desired depressions in the external surfaces of the plastic sheets. The openings in the hollow member may then be joined so that a hollow body is formed having appropriately dimensioned depressions formed in one or more surfaces thereof for frictionally retaining the playing pieces in a fixed position when the board is not being used for playing the game. An advantage of this type of construction of the game board is the extremely lightweight of the board and the ability during the molding process to reinforce the board by making the depressions therein of sufficient depth to extend across the space separating the two opposed surfaces of the board, and thus to provide reinforcing columns or stanchions within the space at the interior of the board. This feature of the blow molded construction will be explained in greater detail as the description of the invention proceeds.

Yet another type of construction which may be used is that of vacuum molding.

From the foregoing description, it will be apparent that

a major object of the present invention is to provide a game board which is constructed of a resilient plastic material, and which uses the resilient character of the plastic to advantage in providing indentations or depressions in the surfaces of the board in which the playing pieces used in playing the game may be stored in a semi-permanent, fixed status to prevent loss of the piece, and also to reduce the cost of construction incurred when a playing piece storage facility must be specially or separately constructed.

Another object of the present invention is to provide a plastic game board which is less likely to scratch or mar the surfaces of tables or desks upon which the board is placed while the game is in progress.

Another object of the present invention is to provide a plastic game board which is characterized by durability and long service life, and which is sufficiently resilient to reduce the occurrence of breakage or deformation resulting from abusive use, or subjection to severe conditions during shipment and storage.

Another object of the present invention is to provide a plastic game board upon which the playing pieces used in playing the game may be stored in fixed position within the board without the requirement of using a separate storage unit for such playing pieces.

A further object of the present invention is to provide a one-part game board which is provided with depressions which are capable of resiliently gripping the playing pieces used in playing the game or games and thereby retaining them in fixed semi-permanent status while the game is not in use.

An additional object of the present invention is to provide a game board which is of extremely lightweight and which possesses sufficient buoyancy to permit the game board to be utilized in playing the game in swimming pools and the like.

Yet another object of the present invention is to provide a plastic game board which can be manufactured, shipped and displayed less expensively than the types of game boards heretofore in use, and which can therefore be made available at a lower cost to lower-income families.

Other objects and advantages of the present invention will become apparent from a reading of the following detailed description of the invention in conjunction with a perusal of the accompanying drawings which illustrate my invention.

In the drawings:

FIG. 1 is a view in elevation of a game board constructed of foamed plastic according to the teaching of the present invention.

FIG. 2 is a section through a game board showing types of depressions which may be formed therein for the purpose of storing or fixedly retaining the playing pieces used in playing the game when the game is not in use.

FIG. 3 is a section through a game board used in playing games such as cribbage and the like where pegs are employed in the course of playing the game. This figure shows the type of depression which may be formed in such game boards to optionally permit the pegs used in playing the game to be loosely positioned in the peg holes while the game is being played or, alternatively, to be fixedly secured in such peg holes when it is desired to store the board during the non-use thereof.

FIG. 4 is a sectional view taken through the center of a plastic game board which has been formed by blow molding, and illustrating the manner in which the depressions which are formed in the surfaces of such game board for the purpose of accommodating the playing pieces may further function as reinforcing or supporting columns or stanchions extending between the opposed surfaces of the board.

Referring now to the drawings, and particularly to FIG. 1, reference character **10** generally designates a

plastic game board constructed according to the present invention. The board illustrated in FIG. 1 is constructed of a porous, cellular plastic such as foamed polyethylene, foamed polyeurathane, or polystyrene. The cellular structure of the plastic may be of either the closed or open form, but the closed cellular form is preferred in order to permit the game board to maintain its buoyancy over extended periods of usage. In a preferred embodiment of the invention, the game board is molded in the form of a right parallelepiped. The board thus has a top surface **12**, a bottom surface (not seen) and four side surfaces, two of which, **14** and **16**, appear in the perspective view of FIG. 1. Molded integrally in the upper and/or lower surfaces thereof are one or more depressions **18** which are dimensioned to accommodate and frictionally retain the playing pieces utilized in playing the game. In the preferred embodiment shown in FIG. 1, for example, a plurality of marbles **20** and a pair of dice **22** are shown pressed into the depression **18**. The depression **18**, as will be subsequently explained, may vary in size and configuration according to the type of playing pieces which are used in the game and are to be accommodated by the depression. In any event, the transverse dimension of the depression **18** will be substantially equal to or slightly smaller than that of the playing pieces which are to be pressed thereinto so that the confining side walls of the depression must necessarily be biased outwardly from each other in order to admit the playing pieces. The walls of the depression **18** are therefore distorted outwardly in plastic deformation and then function to resiliently grip the playing pieces and retain them in a fixed semi-permanent position. In this way, the playing pieces can be safely and conveniently stored at such times as the playing pieces are not being used in playing the game.

In addition to, or in lieu of, the provision of depressions **18** in the upper and/or lower surfaces of the game board **10**, a depression or groove may also be formed in the sides **14** and **16**, such as the depression **24** illustrated in the side **14** as shown in FIG. 1. A plurality of checkers **26** are shown pressed into the depression **24**.

It will be understood that two different types of games may be played using a game board of the general type shown in FIG. 1 where the indicia required for playing the two games are marked off on the upper and lower faces, respectively, of the board. One of the advantages of constructing the board of a resilient plastic material is the ease with which appropriate recesses may be formed in the board in order to receive or support the playing pieces as the game is being played. Thus, in FIG. 1, a plurality of hemispherical depressions or recesses **28** have been formed in the upper surface **12** of the board **10** in a pattern which will be recognized as that usually employed in playing the game of Chinese checkers. On the opposite or lower side of the board (not seen), indicia and appropriate recesses for playing a second game, such as cribbage or Aggravation, might be provided. The recesses **28** may be easily formed in the solid block of foamed plastic by molding the recesses simultaneously with the molding of the board and the game piece depressions **18** and **24**, or the recesses **28** may be formed by various heat treatments of the game board after it has been molded in the parallelepiped shape shown in FIG. 1.

The types of depressions or grooves which may be used for frictionally retaining the game pieces used conjunctively with the game board types constructed according to the present invention may vary in their particular configuration. For example, in FIG. 2, there are shown in section two types of depressions which may be formed in the foamed, cellular plastic for the purpose of retaining either cubic or spherically shaped playing pieces such as dice or marbles. These depressions may, in each case, be said to be undercut so that the side walls of the depression converge toward each other near the top of the depression. In the case of the depressions **30** shown

at the left of FIG. 2, the depression is of generally trapezoidal shape in order to accommodate a die **31**. As the die **31** is pressed downwardly into the depression **30**, the upper terminal edges **32** of the side walls **34** of the depression **30** are wedged outwardly away from each other to permit the die to move downwardly into the depression. Due to the resiliency of plastic material of construction which defines the depression **30**, the die, once it has been pressed fully into the depression, will be frictionally retained therein and will not fall therefrom even though the playing board **10** is inverted, or is jarred, or dropped from a height to the floor.

At the right of FIG. 2 there is shown a depression **36** which may be formed in a resilient plastic game board for the purpose of accommodating and frictionally retaining marbles **37** or other spherical playing members. It will be noted that this depression **36** is somewhat teardrop-shaped in cross-section. That is, the upper terminal edges **38** of the side walls **40** of the depression again converge toward each other so that the marbles must be positively pressed downwardly into the depression in order to permit them to be frictionally retained therein.

Another type of depression which is especially useful in the construction of certain types of game boards according to the present invention is illustrated in FIG. 3. This depression, which is designated in FIG. 3 by reference character **42**, is provided for the accommodation of peg-type playing pieces such as those used in such games as cribbage, or in chess where the chess men are provided with a spike or peg on the bottom thereof to prevent them from sliding around on the chess board. The depression **42** is provided with a small bore **44** at its lower end and a larger bore **46** at its upper end in communication with the smaller bore **44**. The larger and smaller bores, **46** and **44**, respectively, of the depression **42** are interconnected by sharply diverging side walls **48**. It will now be noted that the function of depressions of the type shown in FIG. 3 is to permit the peg-type playing pieces, such as that designated by reference character **50** in FIG. 3, to be rested loosely in the upper bore **46** of the depression when the game is in progress, or alternatively, to be pressed deeply into the recess **42** so that the bottom of the peg occupies the lower bore **44** of the recess **42** when the game is not in progress and it is desired to store the game board with the playing pieces firmly retained in their depressions. In other words, during the progress of the game, the pegs may be simply rested lightly in their respective depressions or holes **42** so that they may be easily extracted therefrom and moved to the next depression which is to be occupied by the peg in the normal sequence of the game. When the game is over and it is desired to put both the game board and playing pieces away, the playing pieces **50** may be pressed firmly downward into their respective depressions **42** so that the side walls of the depressions **42** firmly and resiliently grip the bottom of the pegs and prevent them from being displaced or lost from the game board. The resilient plastic construction of the board permits the depression **42** to retain its shape despite repeated use of the board and the side walls **48** of the depression **42** will spring back to their position shown in FIG. 3 each time the pegs are removed from their fixed, storage position in order to play the game.

Referring next to FIG. 4 of the drawings, a modified embodiment of the invention is illustrated in which the game board is blow molded from a resilient plastic. As a result of the blow molding process, the board is a unitary hollow structure basically comprising two opposed panels **54** and **56** which are integrally joined around their edges. In fabricating the board, as the panels **54** and **56** are "blown" apart from each other, they are pressed over die faces which form the depressions **60** and **62** therein. The depressions **60** illustrated in FIG. 4 are, of course, depressions of the hemispherical type

which might be used for loosely supporting marbles or other spherical playing pieces during the playing of a game such as Chinese checkers. The depressions **62**, on the other hand, are of the type hereinbefore described as being dimensioned to frictionally retain the playing pieces at such times as the game is not in use and it is desired to store the pieces. It is preferred, in blow molding the game board, to place the opposed die faces which are used in forming the depressions **60** and **62** very close to each other so that, in effect, the depressions extend completely across the space inside the board and between the opposed panels **54** and **56**. This construction is illustrated in FIG. 4. It will be noticed that an advantage of forming the depressions in this way is that they then act as supporting or reinforcing columns which vastly improve the structural rigidity and strength of the game board and less material is required to construct the board. A game board having an appearance very like that shown in FIG. 4 may also be fabricated by a vacuum molding process, the technology of which will be familiar to those skilled in the art.

As a final feature of the molded plastic game boards of the invention, and particularly of the blow molded and vacuum molded types of board, the boards may be formed with one or a series of plastic projections or pegs such as those indicated by reference character **64** in FIG. 4. These pegs may then be used to engage holes or depressions in such playing pieces as checkers, chess men, etc. A centrally apertured checker **66** is shown placed over one of the pegs **64**. This, of course, presents the advantage of permitting the game to be played on a shifting or moving surface.

It is appreciated by me that the present invention is not an invention of the type which immediately impresses by virtue of the deviousness or complexity of thought required to derive it, or to understand and appreciate its function. Nevertheless, it is novel, and its very simplicity constitutes one of the major advantages over the types of game boards heretofore in use. The use of foam plastic, as well as other types of resilient plastic, for cushioning and storing materials is, of course, known. However, I believe I am the first to propose a very inexpensive, single piece, one shot molded plastic game board having certain specific types of depressions therein which are precisely dimensioned to permit the playing pieces to be safely and conveniently stored in the board itself when it is not in use.

Certain modifications and variations in the game board structure of the present invention will, of course, be apparent to those skilled in the art, and yet, will continue to rely upon the principle underlying the present invention. For example, instructions for playing the game and/or advertising material may be embossed upon the board during the molding process. Also, although a parallelepiped shaped board has been described by way of example and as a preferred embodiment, game boards having other shapes such as pyramidal and spherical are also contemplated by the invention. Insofar as game boards incorporating such modifications and innovations do not depart from the basic concepts hereinbefore disclosed, it is my intention that these modified boards be considered to fall within the spirit and scope of the present invention, except as the same may be necessarily limited by the language of the appended claims.

I claim:

1. In combination

a movable playing piece adapted for use in playing a game and including a projecting portion having an end; and

a game board for supporting said playing piece during the playing of the game, said game board comprising a body of resilient plastic, said body having a plurality of recesses therein for receiving said playing piece as the game is played, said recesses each having an open top, side walls and a bottom, the upper por-

tion of said recesses each having a slightly larger diameter than the projecting portion of the playing piece and said recesses further having a lower portion contiguous to, and communicating with, the upper portion thereof and of smaller diameter than the projecting portion of the playing piece whereby the playing piece may be rested temporarily in any of said recesses, with said end resting on the convergence of the side walls of said recesses at the intersection of the upper portion and lower portion thereof to permit the playing piece to be easily removed from the recess as the game is played, or alternatively, the playing piece may be pressed deeply into said recesses for firm frictional retention therein when said board is not in use.

2. In combination, a movable playing piece adapted for use in playing a game, and a game board for supporting said playing piece as it is moved from one position to another in playing the game, said game board comprising:

a hollow body of resilient plastic sealing enclosing air in the interior thereof; and

said body having at least one exposed surface and having in said surface a depression extending from one surface of the hollow body through the hollow interior thereof and into contact with the opposite surface of said body to enhance the structural strength of said game board, said depression having a depth less than at least one dimension of the playing piece whereby the playing piece can be placed in and removed from the depression with the fingers, and said depression being further restricted in transverse width to a width such that the sides of said playing piece are resiliently gripped by the walls of said depression when the playing piece is pressed into said depression.

3. In combination, at least two differently dimensioned and configured playing pieces for playing two different types of games on a game board; and

a game board for receiving and supporting said playing pieces during the playing of the game, said game board comprising a body of resilient plastic material having depressions in one surface thereof for supporting one type of said playing pieces of one configuration during the playing of one game, said game board further including a plurality of slots formed therein and corresponding in number to the number of different types of playing pieces provided, each of said slots having side walls, a bottom and an open top, and being adapted to receive all of the playing pieces of one single type and identical configuration, each slot having its side walls spaced from each other along at least one line by a distance less than one dimension of the playing pieces of the type the respective slot is to receive, and having a depth from bottom to open top thereof less than another dimension of the respective playing piece it is to receive, said other dimension extending normally to said one dimension through the respective playing pieces whereby said playing pieces may be pressed into the respective slots in the resilient plastic and retained in storage therein when not in use in playing the game.

4. In combination:

at least one movable playing piece adapted for use in playing a game, and a game board for supporting said playing piece as it is moved from one position to another in playing the game, said game board comprising:

a body of resilient material including:

an upper, substantially monoplanar surface having a plurality of playing piece receiving depressions formed therein for accommodating the playing pieces during playing of the game;

a lower surface extending parallel to said upper surface; and

a side surface interconnecting and extending between said upper and lower surface, said side surface having formed therein at least one playing piece storing depression for detachably securing at least one of said playing pieces to said game board in a stored status when some of the games which can be played on said game board are not being played; whereby said game board may be rested flatly upon a monoplanar supporting surface without interference by said stored playing piece, said playing piece storing depression having an open top, side walls and a bottom, and having a depth less than at least one dimension of the playing piece to be stored therein whereby the playing piece can be placed in and removed from the playing piece storing depression with the fingers, and said playing piece storing depression being further restricted in transverse width to a width such that the sides of the playing pieces stored therein are resiliently gripped by the walls of said playing piece storing depression when the playing piece is pressed into said playing piece storing depression.

5. In combination, a movable playing piece adapted for use in playing a game, and a game board for supporting said playing piece as it is moved from one position to another in playing the game, said game board comprising:

a unitary, one piece body of a resilient synthetic resin having at least two distinct surfaces formed thereon and having game-playing depressions formed in at least one of said surfaces for receiving said playing piece during the playing of a game, said depressions having a depth of less than at least one dimension of said playing piece whereby the playing piece can be placed in, and removed from, the depressions with the fingers,

said one piece body of resilient synthetic resin further having a game piece storing slot in one of the surfaces thereof, said slot being restricted in transverse width to a width such that the sides of said playing piece, when stored in said slot, are resiliently gripped by the walls of said playing piece storing slot when the playing piece is pressed into said playing piece storing slot.

6. In combination, at least one movable playing piece adapted for use in playing a game, and a game board for supporting said playing piece as it is moved from one position to another in playing the game, said game board comprising:

a body of resilient material including:

an upper surface having a plurality of playing piece receiving depressions formed therein for accommodating the playing piece during playing of the game;

a lower surface; and

a surface interconnecting and extending between said upper and lower surfaces, said interconnecting surface having formed therein at least one playing piece storing depression for detachably securing at least one of said playing pieces of said game board in a stored status whereby said game board may be reposed with its upper or lower surface resting upon a supporting surface without interference by said stored playing piece, said playing piece storing depression having a width such that the sides of the playing pieces stored therein are resiliently gripped by the walls of said playing piece storing depression when the playing piece is pressed into said playing piece storing depression.

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DELBERT B. LOWE, *Primary Examiner.*