Oct. 22, 1968 W. D. NELSON 3,406,974

GAME BOARD WITH MAGNETS AND GAME PIECES WITH MAGNETICALLY ACTUATED POINTER ELEMENTS

Filed April 15, 1965 2 Sheets-Sheet 1

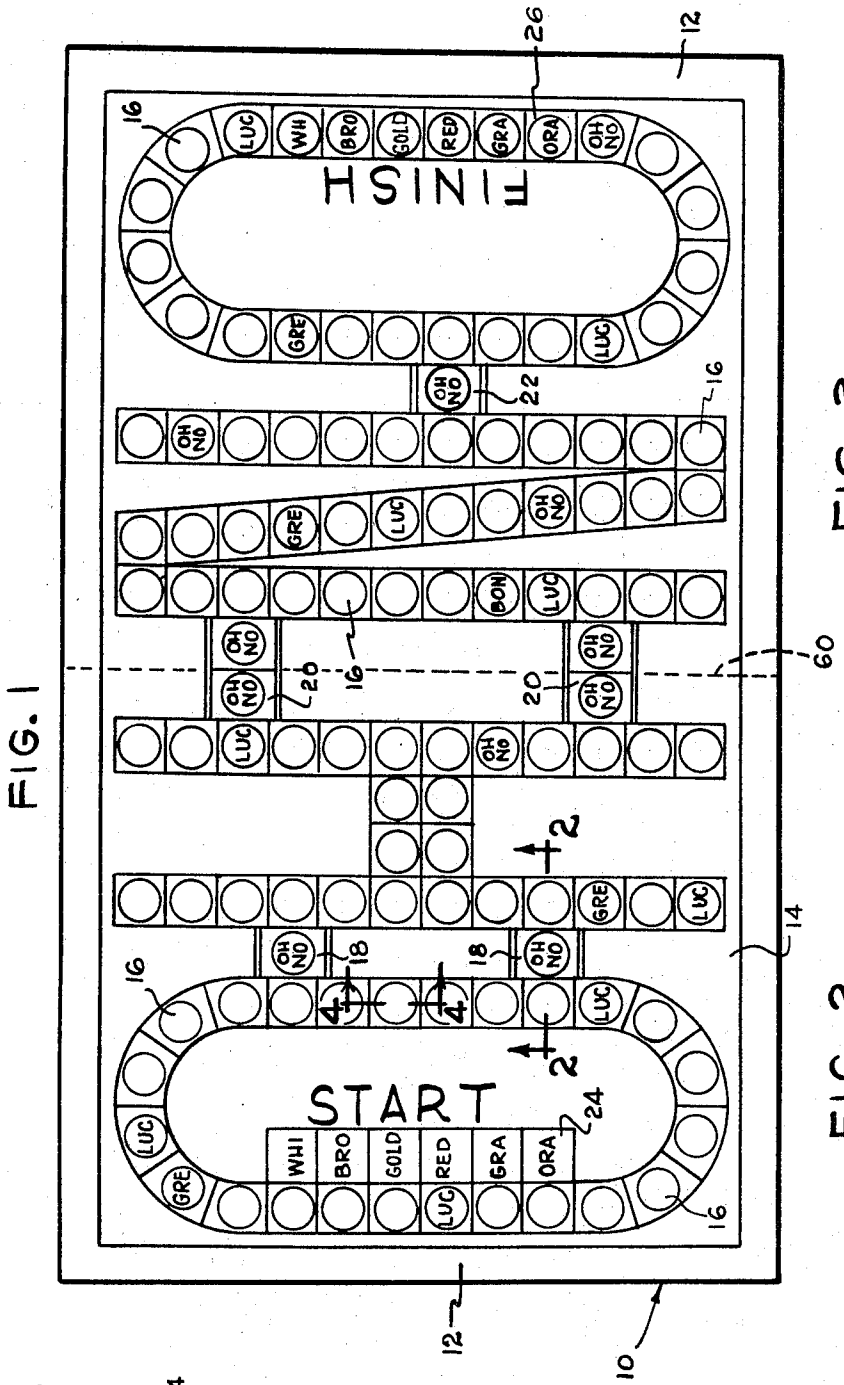


FIG. 1

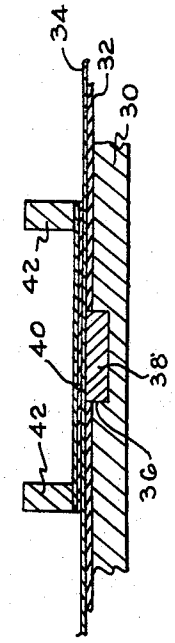


FIG. 3

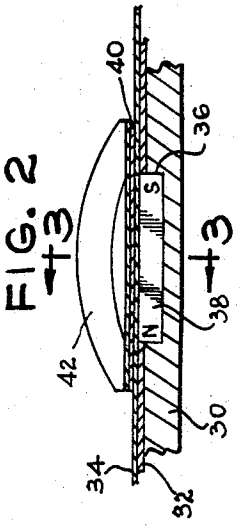


FIG. 2

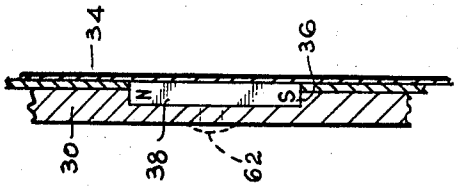


FIG. 4

INVENTOR
WILLIAM D. NELSON

BY McDougall, Hersh & Scott
ATTORNEYS

Oct. 22, 1968 W. D. NELSON 3,406,974
GAME BOARD WITH MAGNETS AND GAME PIECES WITH MAGNETICALLY ACTUATED POINTER ELEMENTS
Filed April 15, 1965 2 Sheets-Sheet 2

FIG. 5

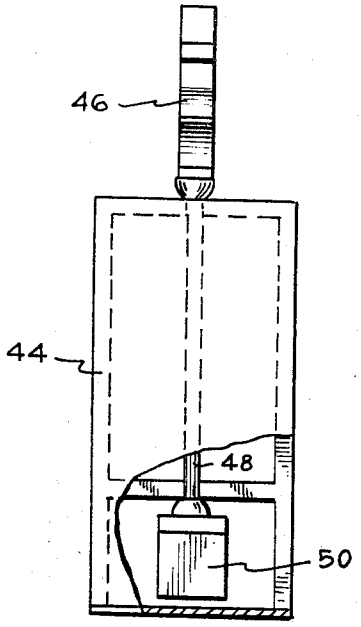


FIG. 7

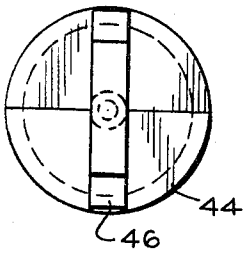


FIG. 8

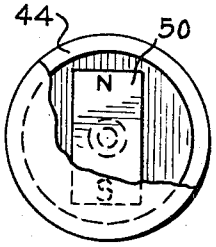


FIG. 6

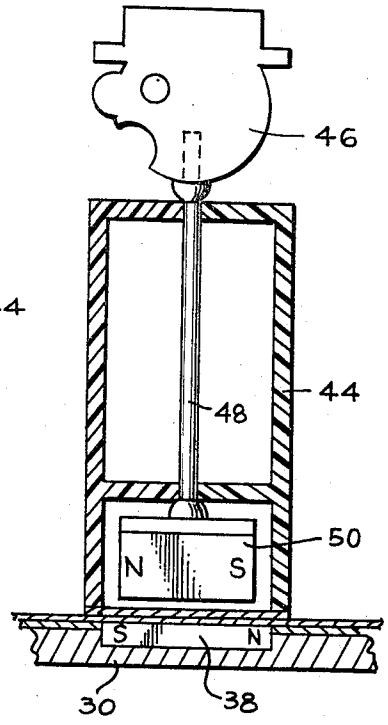


FIG. 9

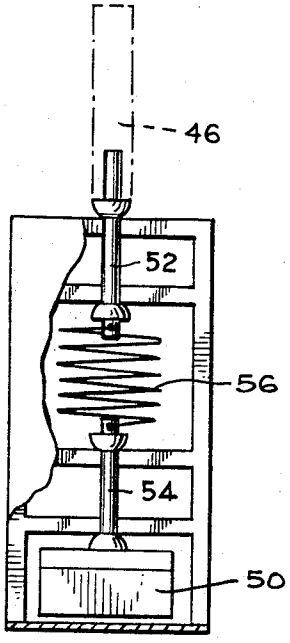
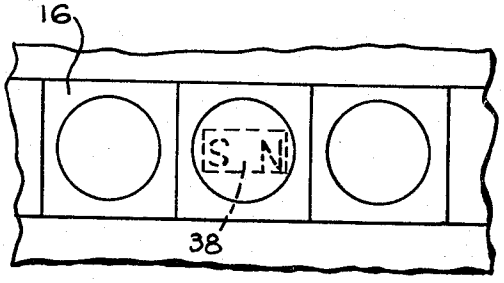


FIG. 10



INVENTOR
WILLIAM D. NELSON
BY McDougall, Hersh & Scott
ATTORNEYS

United States Patent Office 3,406,974 Patented Oct. 22, 1968

3,406,974

GAME BOARD WITH MAGNETS AND GAME PIECES WITH MAGNETICALLY ACTUATED POINTER ELEMENTS

William D. Nelson, 58 Fairway Court, Appleton, Wis. 54911

Filed Apr. 15, 1965, Ser. No. 448,492
1 Claim. (Cl. 273—134)

ABSTRACT OF THE DISCLOSURE

A game construction including a game board defining a plurality of separate positions to be occupied by playing pieces. The positions are aligned in specific paths leading from one end of the board to another whereby the pieces must follow one or more predetermined paths. Magnets are located in the game board at some locations corresponding with some of the game piece positions. The game pieces comprise supporting bodies having rotatable heads serving as pointers mounted on stems with magnets disposed within the supporting bodies and attached at the opposite end of the stems. The stem may be unitary or it may comprise two elements connected by a coil spring which causes the head to vibrate when it is rotated by the magnet. When a game piece is located on a position having a board magnet, the attitude of the head will be determined by the respective pole positions of the board magnet and piece magnets.

This invention relates to a novel game construction which includes magnetized game pieces and magnetized locations on a game board whereby highly interesting features for playing the game can be accomplished.

It is an object of this invention to provide a game construction which involves a completely novel scheme of play due to the provision of magnetized elements associated with the game.

It is a further object of this invention to provide a game construction which combines chance and skill from the standpoint of the players involved whereby a highly interesting scheme of playing the game can be realized.

It is a more particular object of this invention to provide a game construction which involves the use of game pieces having magnets associated therewith and which involves the use of a game board also having magnets, the respective magnets being adapted to control the moves of the game pieces for affecting the outcome of the game.

These and other objects of this invention will appear hereinafter and for purposes of illustration, but not of limitation, specific embodiments of this invention are shown in the accompanying drawings in which:

FIGURE 1 is a plan view of a game construction characterized by the features of this invention;

FIGURE 2 is a enlarged fragmentary cross-sectional view taken about the line 2—2 of FIGURE 1;

FIGURE 3 is a cross-sectional view taken about the line 3—3 of FIGURE 2;

FIGURE 4 is an enlarged fragmentary cross-sectional view taken about the line 4—4 of FIGURE 1;

FIGURE 5 is a vertical elevational view, partly cut away, of a game piece;

FIGURE 6 is a vertical sectional view of the game piece of FIGURE 5 as it appears when associated with the game board;

FIGURE 7 is a top plan view of the game piece;

FIGURE 8 is a bottom plan view, partly cut away, of the game piece;

FIGURE 9 is a vertical elevational view, partly cut away, of an alternative form for a game piece; and

FIGURE 10 is a fragmentary plan view illustrating the association of a magnet with the game board.

The game of this invention generally comprises a combination of game pieces and a game board which carries a plurality of separate positions for the game pieces. Magnets are associated with the game board at locations corresponding to at least some of the game piece positions. Magnets are also associated with the game pieces to thereby provide an attraction between the magnets in the game board and the magnets in the game pieces. The game pieces each carry a pointer which determines the permitted direction of movement of the game pieces. This pointer and the associated game piece magnet are rotatable whereby the relationship between the magnets in the game board and the magnets of the game pieces will determine the direction of the pointer.

The accompanying drawings illustrate the application of the features of this invention to a particular game. As will appear from the following description, this game involves rules, game elements and a sequence of operations which are novel in character and which provide a highly interesting game construction. It will be understood that the instant invention involves the coverage of the specific game disclosed as well as the independent coverage of the novel game elements described herein.

In FIGURE 1, there is illustrated a game board **10** which includes a border **12** surrounding a playing surface **14**. The playing surface displays a large number of locations **16** which illustrate positions for the location of game pieces. The combination of the locations **16** forms the letters OH NO which comprises a preferred name for a game embodying the features of this invention.

Between the respective letters, there are provided bridge locations **18**, **20** and **22**. The bridges **18** and **22** comprise single game piece positions while the bridges **20** include two game piece positions. A plurality of starting positions **24** are identified by different colors so that game pieces of corresponding colors can be properly located at the beginning of the game. Finish positions **26** provide corresponding colors so that a player will know the particular position which must be reached for completion of the game.

A plurality of different special playing positions **16** are also shown on the board. The positions identified "LUC" (lucky) and "OH NO" are provided whereby a player landing on one of these locations can select a card from a stack to receive special instructions regarding further moves. The "GRE" (green) positions identify spaces to which the cards referred to may instruct a player to move. A "BON" (bonus) location is also contemplated whereby extra turns can be received. It will be appreciated in this connection that a wide variety of variations are available with respect to these combinations.

In the embodiment shown, the board **10** comprises a base **30** and an overlying surface portion comprising a metal sheet **32** and a heavy paper cover **34** (see FIGURES 2, 3 and 4). The base defines a plurality of recesses **36**, and these recesses are adapted to receive magnets **38**. The arrangement shown in FIGURE 4 applies to magnets located in game piece positions **16**. FIGURES 2 and 3 illustrate the manner in which magnets **38** can be located at the bridges **18**, **20** and **22**.

The bridges preferably comprise base portions **40** and side walls **42**. The base portions preferably include a metal member whereby the bridges can be held in position by means of a magnet **38**.

FIGURES 5 through 8 illustrate one form of a game piece adapted to be employed with the game board described. The game piece includes a hollowed-out body portion **44** and a head **46** which serves as a pointer. The head is mounted on a stem **48** and a magnet **50** is attached to the lower end of the stem. The combination

of the head, stem and magnet is freely rotatable with respect to the body portion **44**.

FIGURE 9 illustrates an arrangement wherein the head **46** is attached to a first stem **52** while the magnet **50** is attached to a second stem **54**. A spring **56** interconnects the respective stems, and accordingly, when the head turns by reason of magnetic action, the head will "bounce" to a degree before settling in place. This adds to the attractiveness of the game particularly with respect to smaller children.

As shown in FIGURES 2, 6 and 10, the magnets **38** are horizontally positioned in the recesses **36** with the north-south poles being aligned in the direction of movement of the game pieces. As shown in FIGURE 6, the north-south poles of the magnets **50** line up in the opposite direction when a game piece is placed on a location **16** having a magnet associated therewith. Obviously, if the head **46** was pointing in the opposite direction when the playing piece was located as shown in FIGURE 6, then the pointer would rotate 180° to achieve the alignment shown.

Various methods may be employed for utilizing the features of this invention in a game scheme. In the preferred form of the invention, the game object is to move the playing pieces from one of the start positions to a finish position of the same color. Dice are preferably employed as the means for determining the number of positions **16** which can be moved in any given turn. When a playing piece stops on one of the locations requiring a player to select a card, the player must move in accordance with the instructions on the card. Such instructions may require a given number of moves backward or forward, may require interchange of positions with an opponent, may require movement to a particular location such as a bridge, or many other possible variations.

One feature of the game relates to the rule requiring movement in the direction of the pointer on the particular game piece. If a player stops on a location having a magnet, and if the head is reversed through the action of the magnet, then the necessary move of the player must be in the new direction of the pointer. Any number of such magnets may be located in the board depending on the variation in the game operation which is desired.

It will be noted that the design of the game board permits a player to choose the direction of movement in certain instances. Thus, at the start, a player may begin in either direction and the same is true after crossing a bridge. This feature adds to the variety of the game in the sense that a player may anticipate through experience the particular nature of the path which he may choose.

The game construction described may comprise a foldable board with the foldline being located at **60** in FIGURE 1. In this connection, the removable bridge structure is particularly advantageous since the bridges will not interfere with the provision of a flat package for the game.

In order to increase the variety of the game operation, it is conceivable that the various magnet positions could be changed. For example, the sheet **34** could be removably attached to the top of the game board whereby access could be gained to the respective magnets for reversal of their pole positions. In addition, recesses could be provided for all of the game piece positions **16**, and any pattern for the magnets provided could then be selected before starting a game.

In FIGURE 4, a screw member **62** is shown on the bottom of the board **30**. A member of this nature may provide for turning of the magnet **38** for reversal thereof without removing the sheet **34**. Obviously, the recess **36** can be designed to provide this alternative feature.

It is also contemplated that the heads **46** could be releasably attached to their respective stems whereby the head positions with respect to the magnets **50** could be reversed.

As previously indicated, the game piece described herein can be employed in a wide variety of different systems which can be classified as toys or games. In the simplest application, the game piece can be used in conjunction with a board having one or more magnets therein with the object of the system involving turning of the game piece merely for amusement purposes. Such a simple arrangement can be quite attractive to a small child while more complex arrangements such as the game of OH NO, described herein, can readily be devised with the complexity depending upon the age group to which the system is directed.

It will be understood that various changes and modifications may be made in the game construction described which provide the characteristics of this invention without departing from the spirit thereof particularly as defined in the following claim.

That which is claimed is:

1. A game construction comprising game pieces, a game board displaying a plurality of separate positions outlined on the surface of said game board, said positions being in abutting relationship with each other and being aligned in specific paths leading from one end of said board to the other, said pieces occupying said positions successively during play of the game whereby the pieces follow predetermined paths, magnets located in said game board at locations corresponding with some of said game piece positions, said game pieces comprising supporting bodies dimensioned to occupy a single piece position, head portions extending outwardly from the top of said supporting bodies serving as pointers, stems extending into each of said supporting bodies, said head portions being mounted at one end of said stems, and magnets disposed within these supporting bodies attached at the other end of said stems, said stems being rotatably received by said supporting bodies whereby the magnets in said board will operate in conjunction with the magnets of the game pieces to control the attitude of said head portions whenever a game piece occupies one of said locations, and wherein said stems comprise two separate, spaced apart, upper and lower portions, and a coil spring interconnecting said upper and lower portions, said springs operating to impart a vibratory movement to said head portions relative to said supporting bodies when the head portions are rotated due to interaction between the board magnets and the magnets carried on the stems.

References Cited

UNITED STATES PATENTS

1,888,980	11/1932	Dingledine	273—134
2,081,020	5/1937	Sass	273—130
2,185,556	4/1940	Johnson	273—134
2,263,735	11/1941	Kushner	273—137 X
2,295,452	9/1942	Deaton	273—134
2,619,349	11/1952	Abrahamson	273—131
2,809,835	10/1957	Berryhill	273—130 X
1,315,483	9/1919	Edwards	273—131
1,505,071	8/1924	Fraser	273—134

FOREIGN PATENTS

1,263,417	5/1961	France.
1,298,367	6/1962	France.
878,619	6/1953	Germany.
428,318	5/1935	Great Britain.

DELBERT B. LOWE, *Primary Examiner.*