MAGNETIC RING TOSS APPARATUS

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ABSTRACT

An improved game of skill comprises an inclined game board having a peg extending upwardly therefrom, a frame retaining the board in an inclined position, a magnet preferably disposed within the frame below the board, and a plurality of magnetically attractive apertured washers or the like, suitable for tossing around and over the peg. Preferably, the board bears numbered indicia and a pattern of spaces on the upper surface thereof arranged for scoring purposes and practice of mathematical exercises. In one embodiment, the magnet comprises a flat plate pivotally connected to the frame for movement between a position parallel to said board and a position at an angle to said board. In another embodiment, the magnet extends under only a portion of said board. The game is pleasurable, simple, durable, educational, and can be used to teach certain forms of mathematics and improve hand-eye coordination.

3 Claims, 6 Drawing Figures
MAGNETIC RING TOSS APPARATUS

BACKGROUND OF THE INVENTION

A. Field of the Invention
The present invention generally relates to games and more particularly to games of skill requiring the tossing of objects.

B. Description of Prior Art
Certain conventional skill games include scoring boards and objects to toss at the boards. For example, bean bag games and the like are well known parlor games. The objects tossed in such games are usually bean bags, marbles, plastic discs and the like, made of glass, plastic, wood, vegetable mat, leather, paper, etc. In many instances, if the area tossed at, for example, a hole in the board, is missed, the object tossed must be retrieved from a considerable distance, because it easily rolls, sails, etc., thereto. This results in some inconvenience and delay during actual play of the game. Moreover, the objects tossed are easily misplaced, lost, etc., rendering the game non-functional. In addition, such games generally do not function as teaching aids, except for a certain improvement in hand-eye coordination. Accordingly, it would be desirable to provide a simple, inexpensive, enjoyable, durable game of skill which improves hand-eye coordination but which also can be used as a mathematics teaching aid or the like and which can be played without inconvenience or danger of loss of pieces thereof.

SUMMARY OF THE INVENTION
The present invention satisfies the foregoing needs. In this regard, an improved game of skill is provided which is substantially as set forth in the Abstract above. The game features an inclined playing board bearing an upraised peg, preferably at about its center. The board is disposed within a frame which includes a magnet disposed below the board. A plurality of apertured washers of magnetically attractive material are provided for tossing from a predetermined distance by designated players aiming at the peg, with the object of coming as close as possible to the peg and, most preferably, of having each washer slip over the peg, with the peg disposed through the washer's aperture. Preferably, the upper surface of the board bears numbered indicia in spaces arranged in a pattern, so that mathematical scoring computations can be made, depending on the positions of the washers after they are tossed at the peg, the game thus acting as a teaching stimulus.

The magnet below the board can be parallel or at an angle to the board, and, if desired, can be made to adjust between those positions so as to change the game, as desired. The magnet prevents the washers or the like from rolling from where they are tossed. Moreover, the front, rear and sides of the frame can be raised above the level of the board to further aid in preventing loss or distance retrieval of the tossed washers during play of the game. Certain other features of the invention are set forth in the following detailed description and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS
FIG. 1 is a schematic perspective view of a first preferred embodiment of the game of the present invention, portions being broken away to illustrate certain internal features thereof.

FIG. 2 is a schematic top plan view of the play board of the game of FIG. 1.
FIG. 3 is a schematic perspective view of a second preferred embodiment of the game of the present invention, portions being broken away to illustrate certain internal features thereof.
FIG. 4 is a schematic perspective view of a third preferred embodiment of the game of the present invention, portions being broken away to illustrate certain internal features thereof.
FIG. 5 is a schematic top plan view of the play board of the game of FIG. 4.
FIG. 6 is a schematic rear elevation of the game of FIG. 1, illustrating means for pivoting the magnet thereof to a plurality of positions relative to the play board of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

FIGS. 1, 2 and 6
A first preferred embodiment of the improved game of skill of the present invention is schematically depicted in FIG. 1. Thus, as shown in FIG. 1, a game 10 is provided, which includes an inclined flat play board 12 disposed within a supporting frame 14 which also includes a flat plate-like magnet 16 below the board 12. Magnet 16 can be a natural or permanent magnet or a power-actuated electromagnet or the like. A peg 18 extends upwardly from the upper surface 20 of the board 12 at about the center thereof. A plurality of round flat washers 22 are provided, each defining a central aperture 24 dimensioned to easily receive or slip over the peg 18 when tossed at the peg during play of the game. The frame 14 includes raised opposite sides 26, front 28 and rear 30 extending above the upper surface 20 of the board 12 and aiding in retaining the washers 22 on board 12 when tossed thereto.

The board 12, frame 14 and peg 18 can be of paperboard, cardboard, wood, plastic or the like, preferably that material which is inexpensive, durable and light in weight. The washers 22 are magnetically attractive ferrous metal or the like and the board 12 is constructed so as not to interfere with the magnetic attraction exerted by the magnet 16 on the washers 22 when the latter are tossed to surface 20. The magnet 15 tends to cause the washers 22 to be retained at the point on surface 20 to which they are initially tossed, i.e., they do not readily roll or tumble away from the point of impact. Moreover, so-called "leaners" are prevented, i.e., washers which come to rest with one edge on surface 20 and another edge propped up against the peg 18, as occurs in horseshoes. Since board 12 is inclined upwardly from the front to the rear thereof, it also aids in preventing rolling of the washers 22 on impact.

Accordingly, a premium is placed on tossing accuracy, the object being to make each washer 22 slide down the peg 18 with the latter extending through the aperture 24 in the washer 22. Since the magnet 16 is at an angle to the board 12, i.e., it diverges therefrom from the front 28 of the frame 14 to the rear 30 thereof, as shown in FIG. 1, the force with which the magnet 16 attracts the washers 22 and prevents their rolling after they are tossed to the board 12 decreases from the front to the rear of the board 12. If a washer 22 is tossed from in front of the board 12 to beyond the peg 18, i.e., to the rear of the peg 18, there is a greater likelihood of rolling than if it is tossed in front of the peg 18.
The described arrangement increases the skill needed to play the game 10, particularly when the upper surface 20 of the board 12 bears indicia 31 in the form of a numbered pattern of spaces 32 surrounding the peg 18, as shown in FIG. 2, the final position of each washer 22 after tossing it to the board 12 being used to compute a score. As shown in FIG. 2, the spaces 32 nearest the peg 18 bear the highest numbers on their margins.

In one form of the game 10, tossing a washer 22 over the peg so that the peg passes through the aperture 24 counts for 100. If the same washer 22 misses the peg and lands on the pattern of spaces 32, its scoring value can be computed by multiplying the highest numbered two adjacent margins of the space 32 which most nearly encloses the washer 22. In FIG. 2, washer 22 is shown within a space 32 the two highest adjacent margins of which are numbered 5 and 5. These multiplied together yield a scoring value of 25 for the washer 22 in this toss. In order to play the game 10 in this manner, scoring computation involves multiplication and addition. The game 10 therefore constitutes a valuable teaching aid.

It will be noted that the spaces 32 differ in size, the smallest being towards the front (rather than rear) and toward the center of the board 12, thus partly compensating for the variation in attractive force of the magnet 16, as described above, from front to rear of the board. It will be understood that the indicia 31 can be eliminated or can constitute any other desired form. When used, they can be printed, lithographed, etc., on the upper surface 20 of the board 12 or disposed thereon in mono or multi-color or the like and in any other suitable manner.

The magnet 16 can be pivotally secured within the frame 14, if desired, so as to be moveable between the position shown in FIG. 1 and a position substantially parallel to the board 12. Thus, for example, the front end 34 of magnet 15 can be disposed on one or more supports 36 so as to pivot therewith, while the rear end 38 of the magnet can be secured to a pivoting means, such as a rod 40 (FIG. 6), extending rearwardly thereof through an elongated vertical slot 42 in the rear end 30 of frame 14 and terminating in a knob 44. Slot 42 can be provided with a plurality of vertically spaced offset notches 46 so that rod 40 can be releasably engaged therewith to hold the rear end 38 of magnet 16 at any desired height relative to the front end 34.

When the angle between the magnet 16 and the board 12 is changed via the described pivoting operation and apparatus, so also is the magnetic gradient through the board 12, thus changing the manner in which the washers 22 act when tossed to different parts of the surface 20 of the board 12 thus permitting the game 10 to be changed. Accordingly, the game 10 is simple, durable, inexpensive and practical. It also can be played in a variety of ways, all of which tend to prevent loss of the washers 22 and thus increase enjoyment of the game.

FIG. 3

A second preferred embodiment of the invention is schematically set forth in FIG. 3. In FIG. 3, a game 60 is shown which includes the same components as those of FIG. 1. Accordingly, they bear the same numerals but are succeeded by the letter "a." Thus, a board 12a is shown disposed within a frame 14a also containing a flat magnet 16a below the board 12a. A peg 18a is disposed above the upper surface 20a of the board 12a. A plurality of washers 22a having central apertures 24a are shown on board 12a. The game 60 differs from the game 10 only in that the magnet 18a is secured parallel to the board 12a rather than at the angle shown in FIG. 1. Accordingly, there is no magnetic gradient, through the board 12a, as referred to in connection with the description of board 12 of FIG. 1. Other features and advantages of game 60 are the same as set forth in the discussion of game 10.

FIGS. 4 and 5

A third embodiment of the invention is set forth schematically in FIG. 4. In this Figure, a game 80 is shown which includes the same components as games 10 and 60. Accordingly, the same numerals are used to designate its components, but are succeeded by the letter "b." Thus, a board 12b is shown within a frame 14b, which also includes a flat magnet 16b. A peg 18b rises above the upper surface 20b of board 12b. Washers 22b are shown on surface 20b.

Game 80 differs in basic construction from games 10 and 60 only in that the magnet 16b extends only from the front 28b of frame 14b rearwardly to a point immediately below the rear end of peg 18b. Moreover, it will be noted that the rear end of magnet 16b is supported by braces 82 such that magnet 16b is parallel to board 12b.

Indicia 31b can be provided on surface 20b, as illustrated in FIG. 5, which indicia can, for example, divide surface 20b into a scoring area 84 overlying the magnet 16b and a non-scoring area (marked "out") rearward thereof and not overlying the magnet 16b. The scoring area is divided into a plurality of semi-circular scoring zones with scoring values depending on how close the zones are to the peg 18b. In the area 84, there is also a marginal zone 88 peripheral of the lowest numbered scoring zone, which zone 88 is marked "O." It will be understood that indicia 31b can be of any desired type or can be eliminated. Game 80 is played generally in the same manner as games 10 and 60, thus providing improvements in hand-eye coordination while providing fun and enjoyment.

Accordingly, an improved game of skill is provided by the present invention. The various advantages thereof are as set forth in the foregoing. Certain changes can be made in the game, as desired. For example, the magnet 16 used thereon can be of irregular or horseshoe or other shape, rather than as a flat plate. In such instance, the magnetic force provided thereby will considerably vary at different points on board 12, thus providing a further element of chance in playing the game. Various other changes, modifications, alterations and additions can be made in the present game and the manner in which it is played and scored. All such changes, modifications, alterations and additions as are within the scope of the appended claims form part of the present invention.

What is claimed and desired to be secured by Letters Patent is:

1. An improved game of skill, said game comprising, in combination, an inclined game board, means supporting said game board in said inclined position, a peg secured to and rising above the upper surface of said game board, a magnet disposed below said game board in a predetermined position relative thereto, and a plurality of apertured throwing plates, the apertures thereof being sufficiently large to receive said peg, said
apertured plates comprising magnetically attractable material, wherein said means supporting said game board includes a frame and wherein said magnet is secured in said frame, wherein said magnet comprises a generally flat plate extending under at least a portion of said board, wherein said peg is spaced inwardly from the front, rear and sides of said board and wherein said magnet extends only from adjacent one end of said board to adjacent said peg.

2. The improved game of claim 1 wherein said magnet is disposed within said frame at an angle to said board.

3. The improved game of claim 1 wherein said magnet is pivotally connected to said frame and is movable within said frame between a position generally parallel to said board and a position at an angle to said board, and wherein means are connected through said frame to said magnet to effect said movement by pivoting said magnet.