

July 14, 1970

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3,520,535

TETHERED RING GAME APPARATUS

Filed March 14, 1968

2 Sheets-Sheet 1

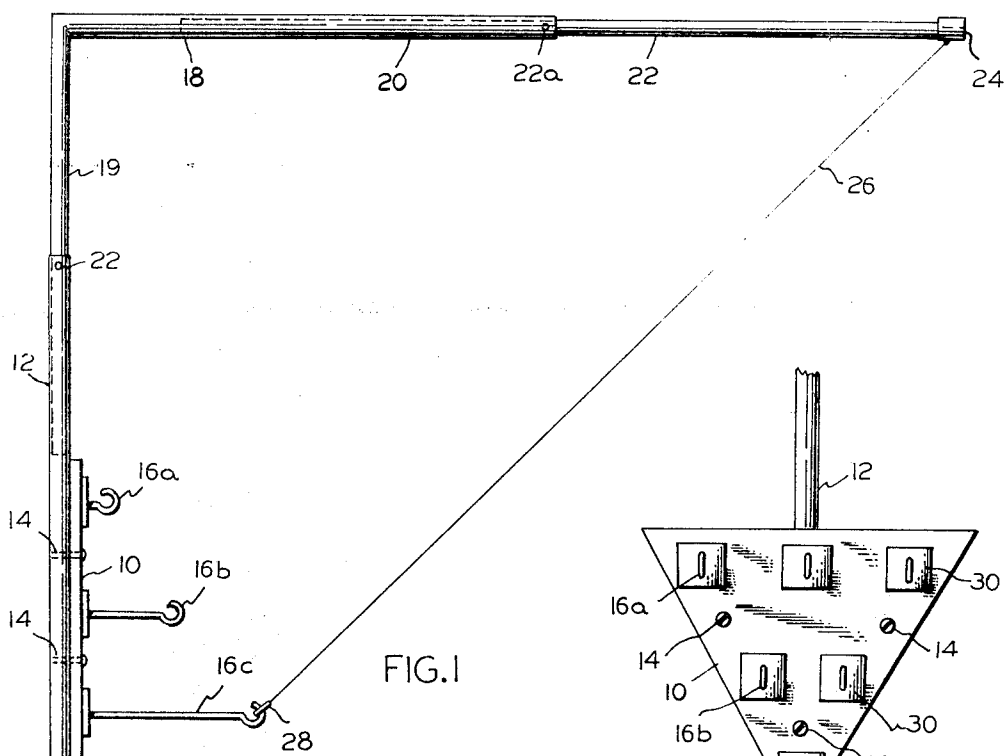


FIG. 1

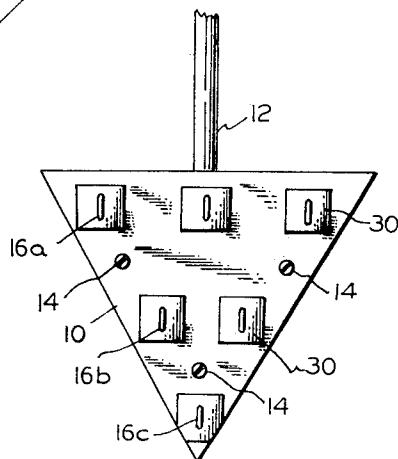


FIG.2

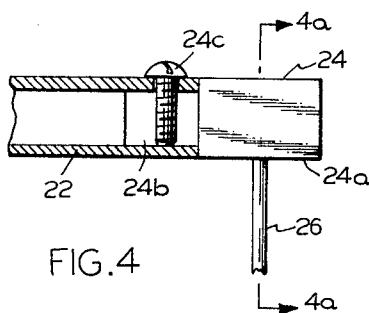


FIG.4

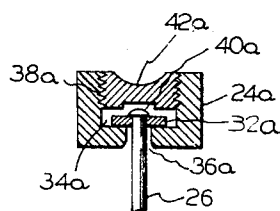


FIG. 4a

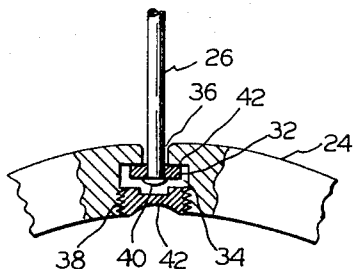


FIG.3

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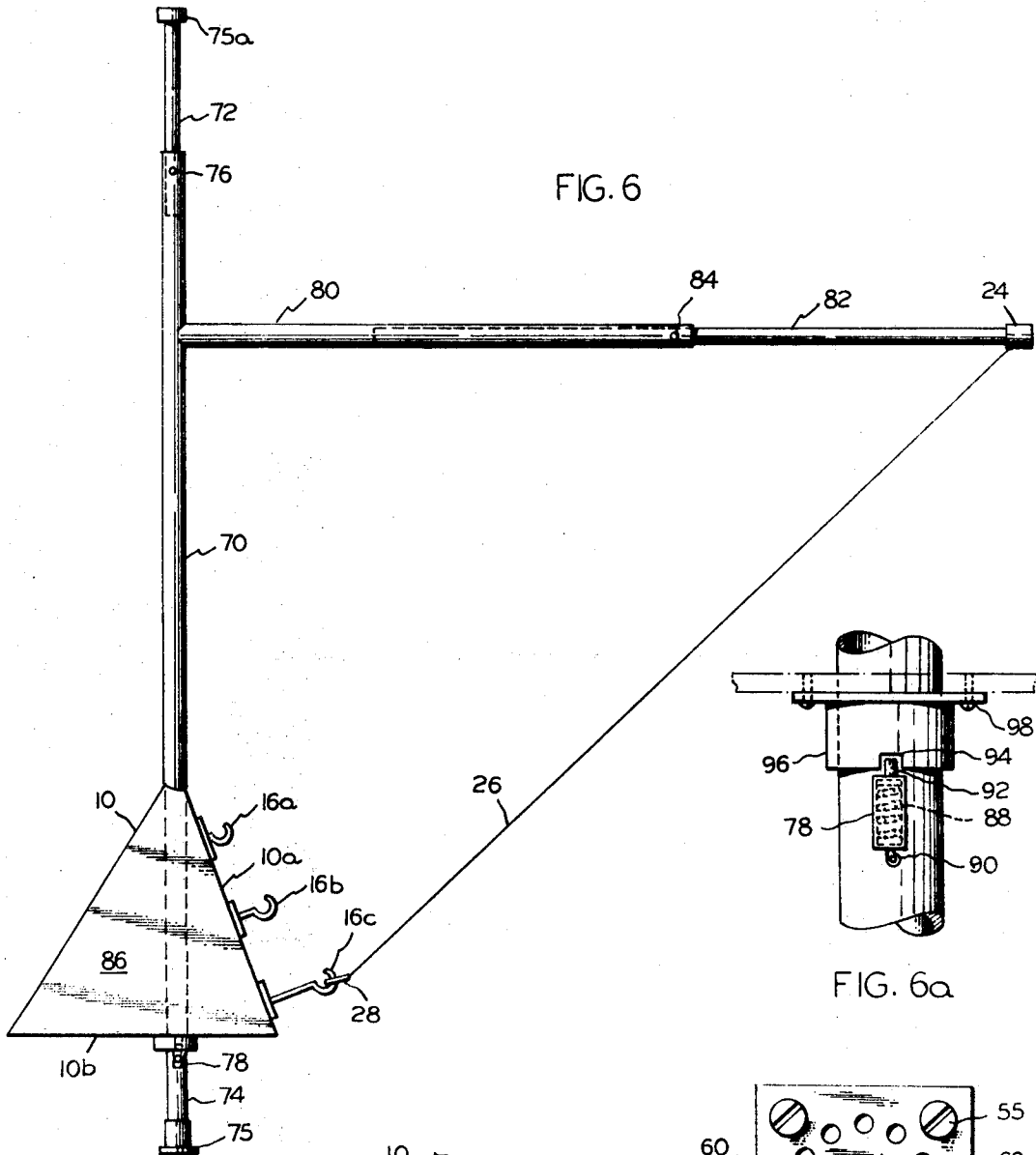


FIG. 6a

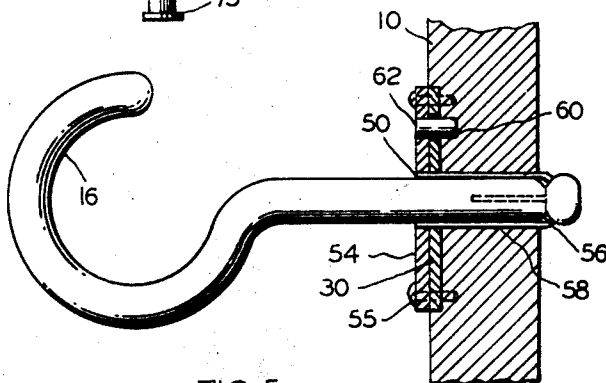


FIG. 5

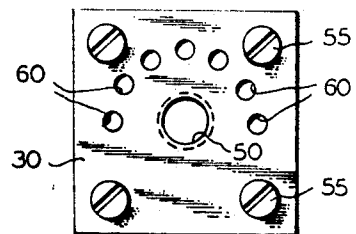


FIG. 5a

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TETHERED RING GAME APPARATUS

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Filed Mar. 14, 1968, Ser. No. 713,079

Int. Cl. A63b 67/06

U.S. Cl. 273—99

7 Claims

ABSTRACT OF THE DISCLOSURE

A tethered-ring game apparatus is provided including adjustable suspension means for rotatably mounting a number of different hook-playing surfaces, adjustable mounting means for the hooks on the playing surfaces, and fastening means for attaching the tether to both the ring and suspension member. The fastening means includes a member for causing a variable force to be applied to the tether whereby the tether may be made rotatable with respect to the ring and the suspension member.

This invention relates to an improved game apparatus and more particularly to such game devices wherein a tethered ring is suspended to be pendulously swung in one of a plurality of selected arcs to cause the ring to engage a desired one of a number of variously positioned hooks mounted on a playing surface.

Such game apparatuses for snaring a tethered ring on one of a number of hooks by causing the ring to swing in a pendulous arc with the proper amount of force so that the ring engages the desired hook have been known for some time. The development of a certain degree of manual dexterity and eye/hand coordination required to play the game is normally attained by playing the game itself. However, prior known game devices have not furnished a sufficient number of different playing combinations and sufficient competition to maintain a high degree of competitive interest and to provide continued entertainment for the players. In general, prior art tethered-ring game devices have been too limited in the number of hook playing surfaces afforded the player and in the positioning and spacing of the hook members on the playing surface with respect to the suspension of the tethered ring. Consequently the players all too readily attain the requisite skill and manual dexterity with a commensurate reduction in the enjoyment afforded by the lessened competitive factor which is generated by playing the game.

This invention provides an improved tethered-ring game apparatus wherein a more competitive degree of manual dexterity and skill is required to fix the tethered ring on the hooks. This is achieved by providing means for readily changing the hook patterns to provide a great variety of games differing in complexity and required skill level. Moreover, player interest is further heightened and maintained for a longer time by also providing means for adjusting the attitude of the individual hook-ends with respect to the pendulous arc of the tethered ring.

In the past, the interest in the game has been maintained primarily by assigning different score points to different hook positions in accordance with the difficulty of ringing a given hook in a given position. This invention also makes provision for such different score points and additionally affords a simple and inexpensive tethered-ring game apparatus which may be readily altered by the player to provide a great variety of game patterns and competitive skill factors.

A primary object of this invention is to provide a greatly improved tethered-ring game apparatus which affords a

great number of variations in the complexity, skill and scoring opportunities to maintain sustained enjoyment, relaxation and competition among the players.

Another object of the invention is to provide a tethered-ring game apparatus which offers a great number of different hook pattern locations wherein there is provided a great variety of scoring possibilities having different levels of difficulty.

And yet another object of the invention is to provide an improved tethered-ring game apparatus that is simple and inexpensive, easily installed and adjusted to eliminate variations in the different selected adjustments to completely avoid variables introduced into the game by the apparatus.

And yet still another object of this invention is to provide an improved tethered-ring game apparatus which is simply constructed, durable and capable of being easily transported.

Other objects, features and advantages of the present invention will be readily apparent to those skilled in the art from the following detailed description of certain preferred embodiments which are more easily described with reference to the accompanying drawings in which:

FIG. 1 represents a side elevational view of one basic embodiment of the game apparatus;

FIG. 2 illustrates a front elevational view of a hook board;

FIG. 3 is a partial sectional view of a preferred embodiment of means for attaching the tether to the ring;

FIG. 4 is a cross-sectional view of a removable attachment fixture for securing the tethered ring to a horizontal support member;

FIG. 4A is a cross-sectional view of the removable attachment member taken along lines 4a—4a in FIG. 4 illustrating the manner in which the tethered ring is secured at its suspension point;

FIG. 5 is a cross-sectional view of a hook member and a portion of the hook board;

FIG. 5A is a front elevational view illustrating the playing surface receptacle for receiving the hook members;

FIG. 6 is a side elevational view of another embodiment of the game apparatus illustrating a preferred form of rotatable hook board playing surface; and

FIG. 6A is a detail drawing of a locking device for holding the rotatable hook board in a selected position.

In the following description the same numerals are used to denote the same or similar parts of the apparatus.

The basic principles of the improved game apparatus may best be described with reference to the embodiment shown in FIG. 1. Playing surface 10 is mounted to vertical supporting member 12 by means of screws 14 which may also serve to securely fix vertical supporting member 12 to a wall or other object such that it is in substantially a vertical plane. Playing surface 10 includes a number of hook members 16a, 16b, 16c which are mounted such that their respective hook-ends extend different distances from playing surface 10 to intersect the pendulous arc of tethered ring 28.

Horizontal supporting member 18 comprises an L-shaped member having legs 19, 20. Vertical leg 19 is adapted to fit within the upper portion of vertical supporting member 12 and to be slidable therein such that the height or elevation of leg member 20 is adjustable. Locking mechanism 22 is provided in vertical support member 12 to secure vertical leg 19 in a selected position at a desired elevation. Locking mechanism 22 may comprise a set screw or a simple detent mechanism which engages detents (not shown) in leg 19. Such devices are well known to those having skill in the art and need not be described in detail for the purposes of this invention.

Horizontal leg 20 includes extension member 22 which

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is constructed to fit within leg 20 so as to be easily slidable therein. Locking mechanism 22a, which may be similar to locking mechanism 22, is provided so as to firmly lock extension member 22 at a desired position with respect to horizontal leg 20. Extension member 22 includes removable holding fixture 24 which provides a means for attaching tether 26 to suspend it and tethered ring 28 a selected distance from playing surface 10. In all embodiments of the apparatus, measurement of tethered ring 28 to the hooks is preferably accomplished by placing ring 28 on any of the variably placed hooks 16a, 16b, 16c and moving extension member 22 until tether 26 is reasonably taut. Extension member 22 is then firmly locked in that position within horizontal support member 20 by locking mechanism 22a.

Tether 26 is preferably a strong, flexible material which is inelastic so as to be invariant in length and which is relatively unaffected by changes in atmospheric and other environmental conditions. Ring 28 may be formed of any durable material which has sufficient impact resistance so as not to be damaged by being swung against the hooks and playing surface. Ring 28 should be sufficiently heavy such that tether 26 remains taut as ring 28 is swung in an arc toward the hooks.

FIG. 2 illustrates a front view of playing surface 10 and a suggested layout or positioning of hooks 16a, 16b, 16c. The hooks are preferably mounted to playing surface 10 by means of plates 30 which will be more fully described hereinafter. Playing surface 10 need not be triangularly shaped as illustrated in FIG. 2 but may be round, square, rectangular, etc., or any other selected shape. Similarly, hooks 16a, 16b, 16c may be spaced in any desired manner, the only requirement being that the hook ends of hooks 16a, 16b, 16c must intersect an arc of ring member 28. To this end, hooks 16a, 16b, 16c are of different length in accordance with their respective positions on playing surface 10 as best shown in FIG. 1.

FIG. 3 illustrates an enlarged cross-sectional view of a portion of ring 28. Ring 28 includes disc 32 and threaded hollow slot 34 having a narrow neck portion 36 and a wider threaded portion 38. Tether 26 is inserted through a centrally located hole in disc 32 and firmly secured therein by screw 40. In operation, tether 26 is held taut by the weight of ring 28 such that disc 32 is held against surface 42 of hollow slot 34. Neck portion 36 of hollow slot 34 is sufficiently wide so as to allow free movement of tether 26 when it is pendulously swung to any of the hook members mounted on the playing surface. Plug 42 is screwed into hollow slot 34 and engages disc 32 either loosely or tightly such that disc 32 is either free to swivel inside hollow slot 34 or to be held rigidly therein. This provides a means whereby the players may change the complexity of the game by allowing disc member 32 to either rotate or not rotate within hollow slot 34. This imparts a non-twisting or twisting motion of tether 26 and ring 28, respectively. It is, of course, understood that tether 26 may extend through and beyond the hole in disc 32; the other end of tether 26 not being shown in FIG. 3 for clarity. Tether 26 may be lengthened or shortened simply by unscrewing screw 40 and making the necessary adjustment to tether 26 after which screw 40 may again be tightened.

FIG. 4 illustrates a preferred embodiment of attachment member 24 which is shown to consist of two cylinders; cylinder 24a having a greater diameter than cylinder 24b. The diameter of cylinder 24b is selected such that it is slidable within extension member 22. If desirable, set screw 24c may be provided in a slot of extension member 22 so as to securely fasten attachment member 24 to extension member 22.

FIG. 4A illustrates a cross-sectional view of the movable attachment member for suspending tether 26 from the end of extension member 22. The manner in which this end of the tether is secured to removable attachment member 24 is the same as the means used to attach the

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tether to ring 28. Thus, removable attachment member 24 includes disc 32a and threaded hollow slot 34a having a narrow neck portion 36a and a wider threaded portion 38a. The free end of tether 26 is inserted through a centrally located hole in disc 32a and firmly secured therein by screw 40a. Neck portion 36a of hollow slot 34a is sufficiently wide to allow free movement of tether 26 when it is pendulously swung to any of the hook members mounted on the playing surface. Plug 42a is screwed into hollow slot 34a and engages disc 32a either loosely or tightly such that disc 32a and tether 26 are either free to rotate or to be held immovable.

FIG. 5 illustrates a preferred embodiment of the manner in which the hooks are mounted to the playing surface. Hooks 16 are inserted into variously positioned hook-holes 50 on playing surface 10. Hooks 16 are securely held in place in hook-holes 50 by means of a frictional force exerted on hook shank-groove 56 by tension member 58. Such an arrangement is similar to the means used to engage electrical jacks and need not be described in detail for the purposes of this invention. Hook 16 is attached to collar member 54 which includes pin 62. Plate member 30 (which is more fully illustrated in FIG. 5A) includes a plurality of pin-holes 60 positioned radially about hook-hole 50. Any one of the several pin-holes 60 may be used to place hook 16 in a desired attitude by inserting pin 62 into a selected pin-hole 60. Thus, hook 16 may be rotated about its axis such that the hook end is either vertical, horizontal, or occupies a position between a vertical and a horizontal position. This provides a further means for increasing or decreasing the complexity of the game since it is apparent that when hook 16 occupies a vertical position it will be easier for hook 28 to be swung over it than when hook 16 is in a horizontal position. This is so since ring 28 is being swung in arcs in vertical planes. Fasteners 55 provide a means for mounting plate 30 to playing surface 10.

FIG. 6 illustrates a second preferred embodiment of the invention. In this embodiment the support for the playing surface and tether consists of T-shaped support member 70 which includes upper telescoping element 72 and lower leg 74. Support member 70 is somewhat similar to the adjustable telescoping floor-to-ceiling pole lamps which have become popular in the last few years. Element 72 telescopes within support member 70 and locking means 76 are provided to securely fasten element 72 in a desired position to accommodate different height ceilings. Just as in the adjustable floor-to-ceiling lamp holders, locking means 76 may include a spring or spring-loading element 72. Support member 70 is held rigid to the floor at its base by a ribbed, hard rubber disc element 75, and in similar fashion telescopic element 72 is held rigid at the ceiling or overhead structure under tension with a similar disc 75a. Horizontally extending member 80 of support member 70 includes telescoping element 82. Locking mechanism 84 is provided to securely fasten telescoping member 82 at a desired position and may be similar to locking mechanism 22, 22a described above. Removable attachment member 24 is fixed to the end of the telescoping member 82 for suspending tether 26 as described hereinbefore.

In this embodiment of the invention, playing surfaces 10 are in the form of a tetrahedron 86 which is rotatably mounted to support member 70. Thus there are three playing surfaces formed, namely, 10, 10a and 10b. Each of these three playing surfaces may have a basic design but with many game variations, i.e. different positions and spacing of the hook members. Tetrahedron 86 may be rotated such that a desired playing surface faces tethered ring 28 and then locked in place by locking means 78. The angle of slope of all the three playing surfaces is fixed by the outer dimensions of the sides of the playing surfaces. The length of hooks 16a, 16b, 16c is then selected such that their hook-ends intersect the arc of ring member 28 as discussed previously.

A more detailed illustration of locking means 78 and the means by which tetrahedron 86 is mounted to support member 70 is shown in FIG. 6A. Locking means 78 essentially comprises compressed spring member 88 and tab 90 which provides a means for disengaging or engaging pin 92 within slot 94. When it is desired to rotate tetrahedron 86, pin 90 is grasped and a downward force exerted against compression spring 88 so as to disengage pin 92 from slot 94. Tetrahedron 86 is then rotated until the desired playing surface is facing tether 26 and then tab 90 is released allowing pin 92 to engage slot 94 thereby pushing ring member 96 up against the bottom surface 98 of tetrahedron 86. Tetrahedron 86 may be mounted to support member 70 in any convenient manner. For example, bearings may be provided at the bottom and top of tetrahedron 86 through which is received support member 70. Such bearing means need only be very simple and inexpensive since tetrahedron 86 is not very heavy.

The tetrahedronally shaped playing surfaces are merely illustrative and it will be recognized that playing surfaces 10 may take the shape of square, rectangular or other shaped boxes.

As in the other embodiment, measurement of ring member 28 to hooks 16 is accomplished by placing ring 28 on any of the variously spaced hooks 16 and moving telescoping member 82 either in or out of horizontal supporting member 80 until tether 26 is reasonably taut. Telescoping member 82 is then locked firmly into place by locking means 84.

In addition to positioning hook-holes 50 in a different location on playing surface 10, and rotating hooks 16 about their axes, there are other means for varying the complexity of the game. For example, the hook ends of hook 16 may be more open or closed to increase or decrease the ease with which a ring member may slip over the hook end portion. Further modifications, changes and alterations may be apparent to those skilled in the art which can be made without departing from the scope of the present invention which is intended to be limited only by the following claims.

What is claimed is:

1. A tethered-ring game apparatus, comprising; support means for mounting a playing surface and suspending a tethered ring, a playing surface mounted to the support member, a tethered ring suspended from said support member for swinging in a number of pendulous arcs to and from the playing surface, said playing surface including a number of hooks, the lengths of the hooks from the playing surface being variable in accordance with the position of the hook on the playing surface such that each hook end intersects at least one of the pendulous arcs of the tethered ring, said tethered ring includes fastening means for attaching the tether to the ring and means for receiving and holding one end of the tether to hold the tether to said ring, said telescoping arm including a removable attachment member and means for receiving and holding the other end of the tether, and force on said means for receiving, whereby said tether said fastening means and said attachment member each further including adjusting means engageable with said means for receiving to apply a variable

is fixed or rotatable with respect to said ring and said tether attachment member.

2. A tethered-ring game apparatus according to claim 1 wherein the hooks are mounted to the playing surface by means of hook mounts, the hook mounts including a slot for receiving one end of the hook means in friction engagement and means for securing the hook means in a number of positions when the hook means is rotated about its longitudinal axis in the hook mount.

3. A tethered-ring game apparatus according to claim 1 wherein the support means further includes an additional telescoping member extending above the horizontal support member such that the support member may be mounted between the floor and ceiling of a room, and further comprising rotatable playing surfaces mounted to the support means, the rotatable playing surfaces being adjustable in more than one position to present different playing surfaces to the tethered ring.

4. A tethered-ring game apparatus according to claim 3 wherein the rotatable playing board further includes locking means for securely fastening the playing board in one of a given number of playing positions.

5. A tethered-ring game apparatus according to claim 4 wherein the playing board is in the form of a tetrahedron having three playing surfaces each with a different pattern of hooks mounted thereon.

6. A tethered-ring game apparatus according to claim 3 wherein said support means further includes locking means for fastening the leg of said L-shaped member in a desired position, and the horizontally extending leg member includes locking means for fastening the telescoping arm in a desired position.

7. A tethered-ring game apparatus according to claim 1 wherein said support means includes a substantially L-shaped member having one leg telescopically mounted to a top portion of said support means and the other leg including a telescoping arm,

said fastening means includes a first cylindrical slot extending from the inner diameter of the ring partially to the outer diameter of the ring, a second cylindrical slot of smaller diameter than said first cylindrical slot extending from said first cylindrical slot to the outer diameter of said ring,

said attachment member includes a first cylindrical slot extending from one surface partially through to the other surface and a second cylindrical slot of smaller diameter extending from the end of said first cylindrical slot to the other surface of said connecting member, and

said means for receiving and holding each consist of annular disc means engaging with said lips formed at the intersections of said respective first and second cylinders.

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