

US 20110195805A1

(19) United States(12) Patent Application Publication

Sliger et al.

(10) Pub. No.: US 2011/0195805 A1 (43) Pub. Date: Aug. 11, 2011

(54) DISC THROWING TARGET STRATEGY GAME

- (75) Inventors: Bradley J. Sliger, Seattle, WA
 (US); Ali A. Mastan, Mercer
 Island, WA (US)
- (73) Assignee: Bendercup, LLC, Seattle, WA (US)
- (21) Appl. No.: 13/014,837
- (22) Filed: Jan. 27, 2011

Related U.S. Application Data

(60) Provisional application No. 61/303,495, filed on Feb. 11, 2010.

Publication Classification

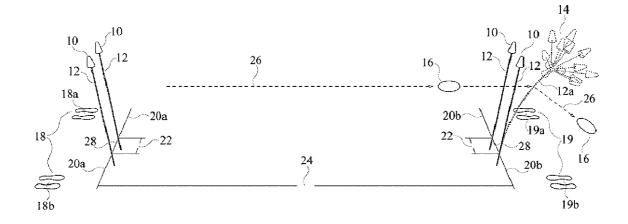
 (51)
 Int. Cl.

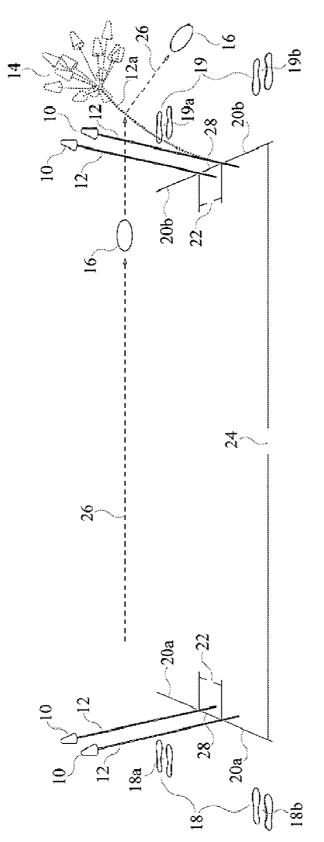
 A63B 67/00
 (2006.01)

 (52)
 U.S. Cl.
 473/470

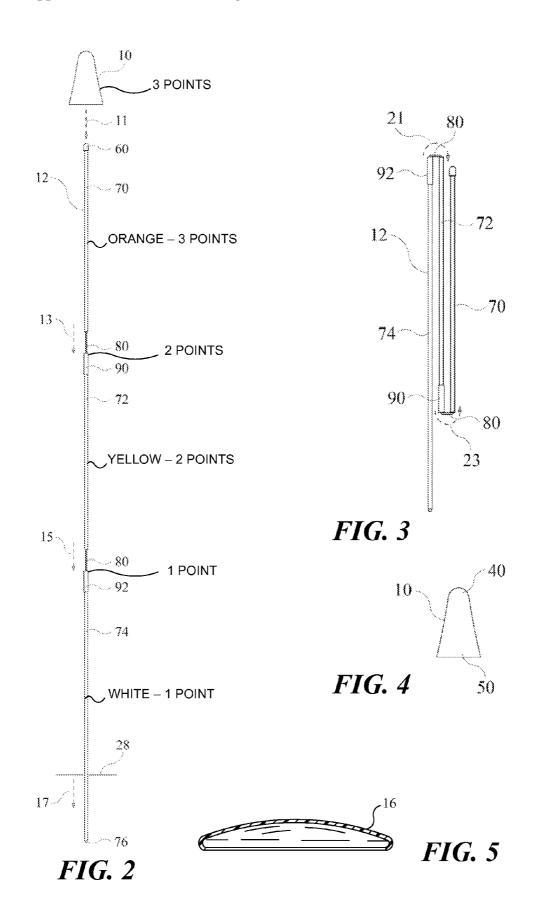
(57) **ABSTRACT**

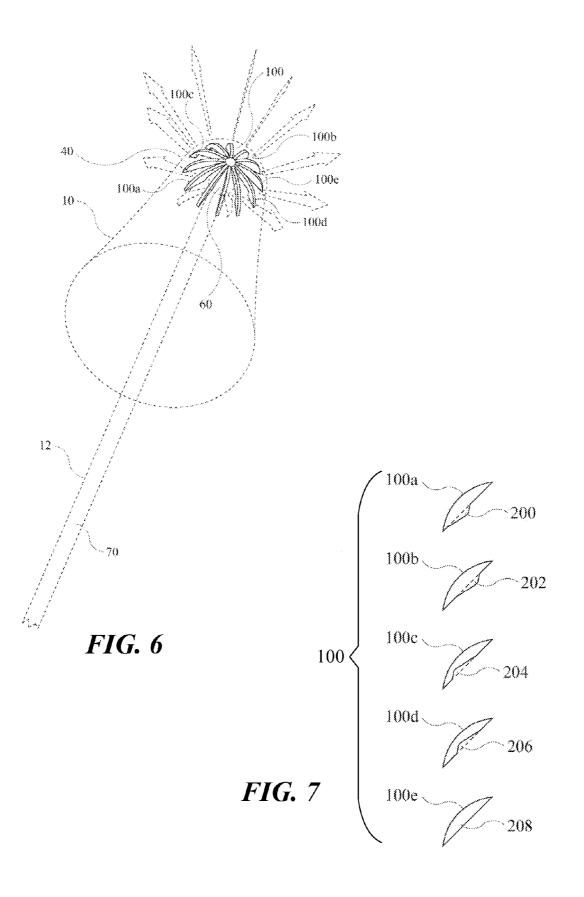
A disc throwing game with multiple scoring components includes four flexible poles with point values associated with each different longitudinal segment of the poles. Each set of two poles is placed into or supported vertically on the ground at opposite ends of a playing field, and an inverted cup is placed on top of each pole. The teams stand at opposite ends of the field, behind their set of poles. The offensive team throws a disc, attempting to strike the defensive team's pole (s), knocking the cup(s) from the poles. The offensive team scores points by striking the defending team's pole(s) or cup(s), but only if the defending team does not catch the disc or the falling cup(s) before they strike the ground. The defending team thus attempts to catch a deflected disc or falling cup(s) to prevent the offensive team from scoring.

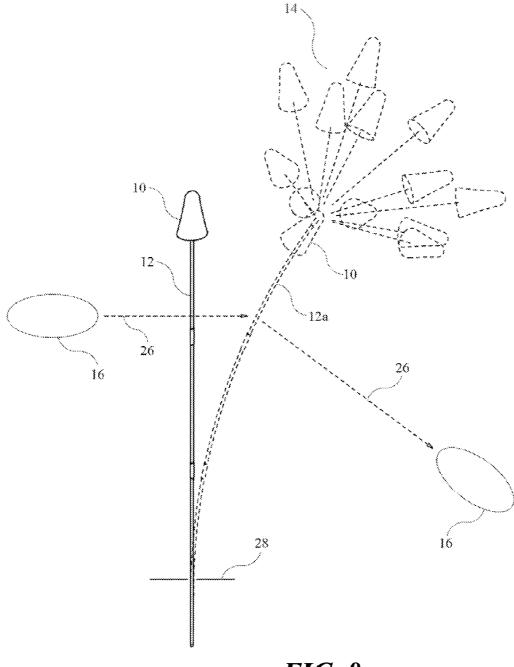




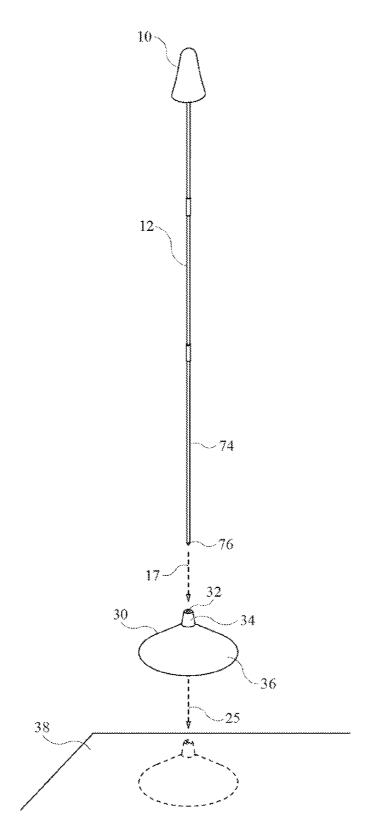




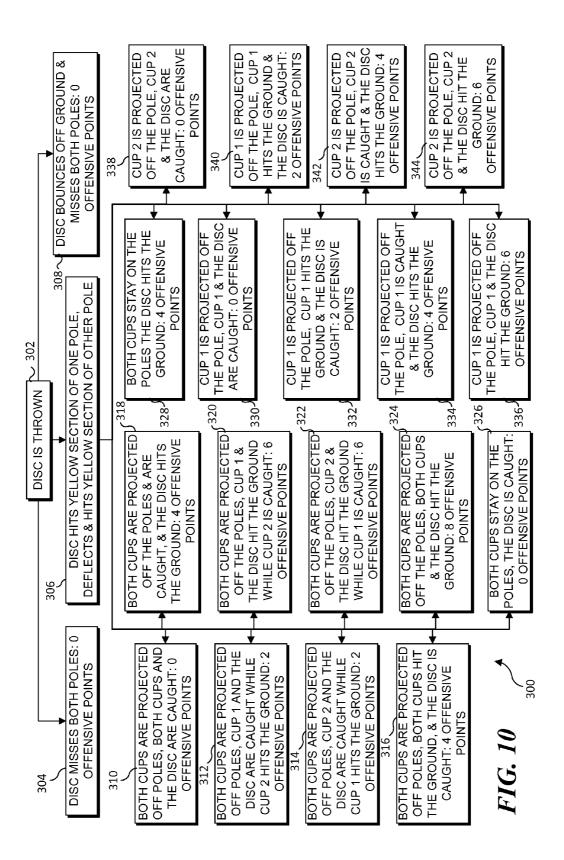


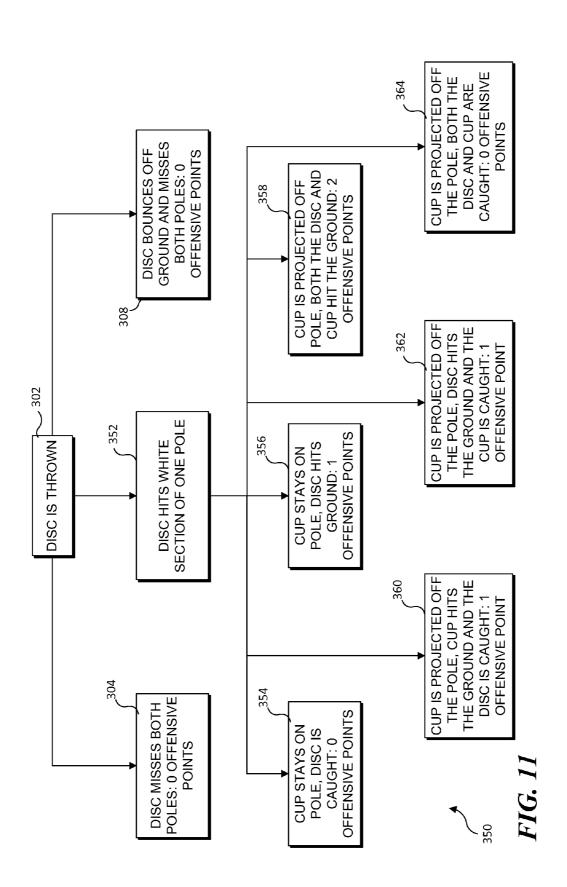


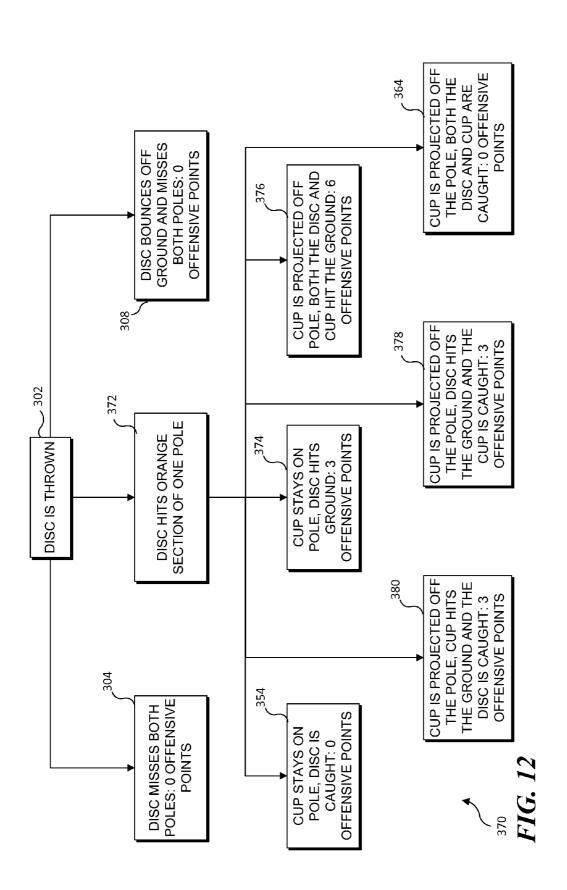


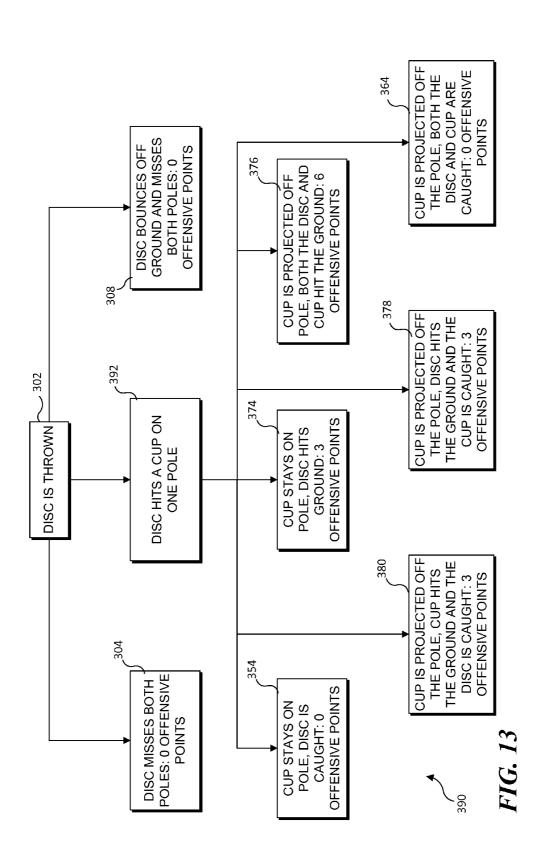


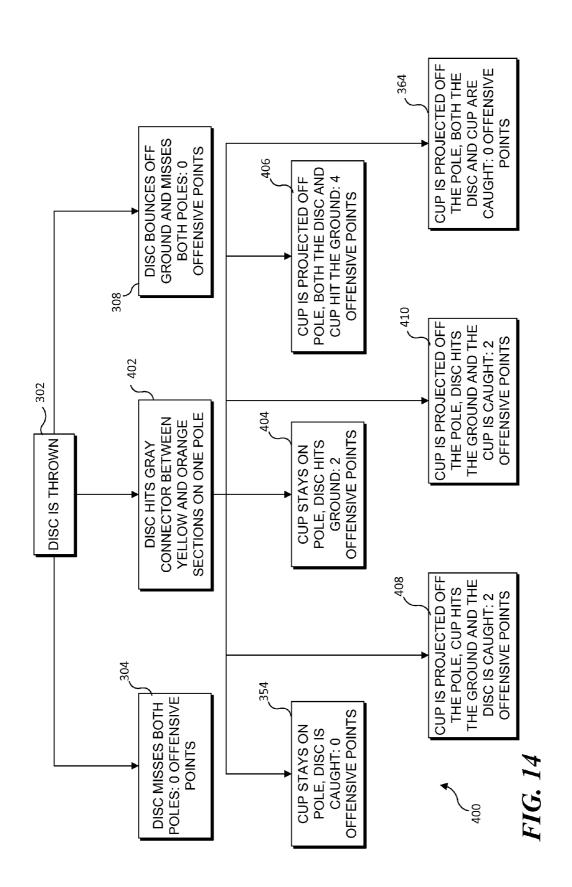


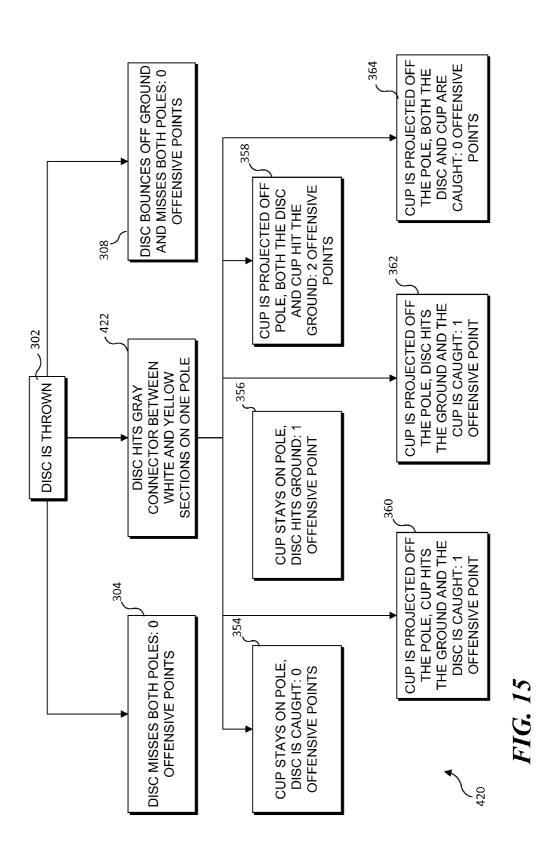


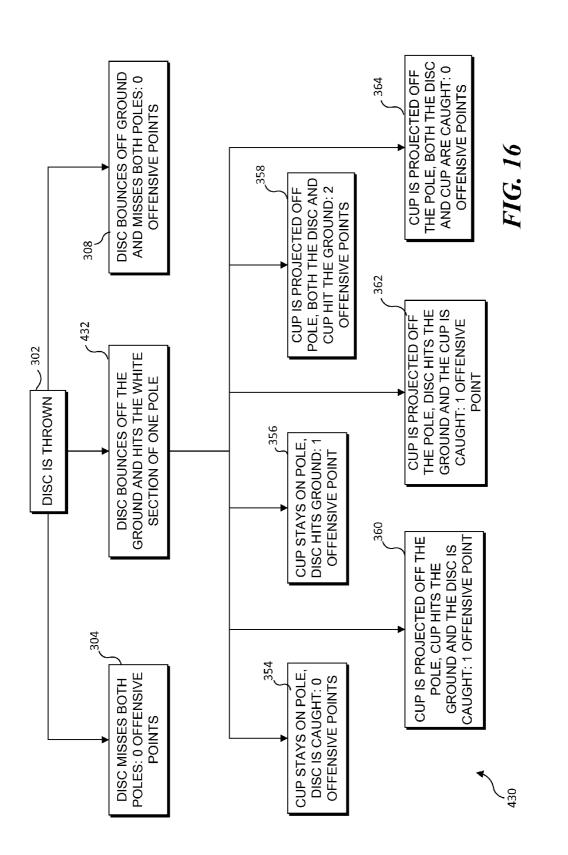












DISC THROWING TARGET STRATEGY GAME

RELATED APPLICATIONS

[0001] This application is based on a prior copending provisional application Ser. No. 61/303,495, filed on Feb. 11, 2010, the benefit of the filing date of which is hereby claimed under 35 U.S.C. §119(e).

BACKGROUND

[0002] Plastic aerodynamic projectiles, which are intended to be thrown by a person, such as the FRISBEE™ flying disc manufactured and sold by Wham-O, Inc., are favorite toys for people of all ages. Since these devices are lightweight, portable, and low in cost, they are frequently taken to the beach, picnics or other occasions where two or more people spread apart from each other, throw the projectile, and try to catch it. Using a flying projectile is thus an alternative to playing catch with a ball. Since the flight path of an aerodynamic flying projectile is more variable and harder to control than a baseball or other spherical object, there is clearly an increased element of skill in accurately throwing the aerodynamic projectile to another person or at a predefined object or location. Accordingly, it is not surprising that a number of games have been created that test a user's ability to accurately throw an aerodynamic projectile such as a flying disk accurately toward a target-whether another person, a spatial location, or an object.

[0003] One such game is described in U.S. Patent Application Publication No. 2008/0224409 (Marshall et al.). In this application, two poles are positioned vertically at each end of a playing area. The poles at each end of the field are spaced apart by a gap a little bit wider than the diameter of a flying disc that is used during the game. An object is positioned on top of each pole. The player on one team throws the flying disc toward the poles at the opposite end of the play area, trying to knock the object off the top of the pole by striking the pole. A point is awarded if the flying disc strikes a pole and knocks the object to the ground. The players at the end of the field toward which the disc is thrown try to catch an object knocked from a pole before the object strikes the ground, which prevents a point from being awarded to the team of the player who threw the flying disc. Two points are earned by a player who is able to throw the flying disc between the poles. The team that first reaches 15 points wins the game; however, to win, a team must have at least two more points than the other team. So the game can continue if both teams accumulate 15 points but do not lead by two points, until one of the teams draws ahead by two points.

[0004] While the game described above provides more interest and requires more skill to win than simply throwing the flying disc to another person, it still is rather simplistic and does not provide sufficient tests of the throwing and catching skills of the members of each team, as might be desirable. For example, it would be desirable to provide more than two point scoring options to such a game. It would also be desirable to provide an object that is knocked from the top of the pole along a randomized and very variable path, since an object that simply rests atop a pole will have a somewhat limited angular range for the path of the object when the pole is struck.

[0005] It would also be desirable to enable a defending team to prevent points from being awarded by catching the

flying disc before it strikes the ground, rather than just preventing points from being awarded if the object is caught before it strikes the ground. It would further be desirable to award a differing number of points based on a section of the pole that is struck. The greater diversity in scoring should make a game that uses a flying projectile and poles much more interesting.

SUMMARY

[0006] The description and claims that follow define an exemplary method for enabling two teams to compete while playing a game with a thrown projectile. The method includes the steps of positioning a plurality of flexible poles at opposite ends of a playing field. Each flexible pole has a plurality of longitudinal segments with different visual markings. At least two flexible poles are spaced apart from each other at one end of the playing field, and at least two other flexible poles are spaced apart from each other at the opposite end of the playing field. One of the teams defends the flexible poles positioned at one end of the playing field, and the other team defends the flexible poles positioned at the opposite end of the field. An inverted cup is placed on a top of each of the plurality of flexible poles. Players on the two teams take turns throwing a projectile from one end of the playing field toward the flexible poles at the opposite end of the playing field in an attempt to knock the inverted cup on one or more of the flexible poles off the flexible pole, so that the inverted cup falls to the ground. The projectile is thrown to strike at least one of the flexible poles on which an inverted cup is disposed or the inverted cup. Points are awarded to a player of the team that strikes a flexible pole or inverted cup with the thrown projectile. The number of points that are awarded depends at least in part upon a specific longitudinal segment of the flexible pole that was struck with the projectile, each different longitudinal segment of a flexible pole having a different point value associated with it; whether an inverted cup was knocked off the flexible pole by the projectile that was thrown and struck the ground without being caught by a player on the team defending the flexible poles at which the projectile was thrown; and whether the projectile was caught by a player on the team defending the flexible poles at which the projectile was thrown after striking a flexible pole or an inverted cupbefore the projectile strikes the ground. A winner of the game is determined at least in part based on the number of points accumulated by each team.

[0007] The method further includes the step of associating a point value for each different longitudinal segment of a flexible pole. The point value increases from a minimum for a longitudinal segment closest to the ground, to a maximum for a longitudinal segment closest to the top of the flexible pole. Each different longitudinal segment of the flexible poles can be made a different color to visually distinguish the longitudinal segments of a flexible pole from each other, enabling the specific longitudinal segment struck by the projectile that was thrown to be more readily visually determined.

[0008] If the projectile that was thrown strikes an inverted cup, but the inverted cup remains on the flexible pole, points are awarded to the team that threw the projectile, unless, after striking the inverted cup, the projectile is caught by a player on the team defending the flexible poles at which the projectile was thrown. If an inverted cup is knocked from a flexible pole and strikes the ground, the number of points awarded is

increased. For example, the points awarded for the projectile striking a specific longitudinal segment of a flexible pole can be doubled.

[0009] If more than one flexible pole is struck by the projectile, points are added together for each longitudinal segment of the different flexible poles struck by the projectile to determine the total points awarded the player throwing the projectile.

[0010] The winner of the game is the team that first accumulates a predetermined number of points and also thereafter knocks an inverted cup from the top of one other flexible poles defended by the other team (without the inverted cup being caught by the team defending). If both teams have accumulated the predetermined number of points before one of the teams also knocks an inverted cup off a flexible pole that then strikes the ground, the winner of the game is the first team to knock a plurality of inverted cups from the flexible poles without the cups being caught.

[0011] Also, points are awarded for a projectile striking a flexible pole or the inverted cup, even if the projectile first strikes the ground.

[0012] In an exemplary embodiment, the projectile comprises an aerodynamic projectile that generates lift due to its cross-sectional profile.

[0013] In at least some exemplary embodiments, each inverted cup includes a plurality of inwardly extending ribs running longitudinally along its inner surface, adjacent to a closed end of the inverted cup. The plurality of ribs have inner edges with a plurality of different shaped profiles, so that when the inverted cups are knocked from the flexible poles by the projectile that is thrown, an interaction between the ribs and the top of the flexible pole causes the inverted cup to follow a random and unpredictable path, making the inverted cup more difficult for the team defending the flexible poles to catch.

[0014] The teams can mutually agree to alter the difficulty of the game. For example, a length of the playing field as measured between the plurality of flexible poles positioned at opposite ends of the playing field, or a spacing between the flexible poles at each end of the playing field can be varied. Also, the predetermined number of points that must be accumulated by a team to win the game can be increased or decreased. Or, the requirement for knocking an inverted cup from a flexible pole after accumulating the predetermined number of points that must be accumulated can be eliminated. A further change may require that either or both of the projectile and the inverted cup be caught using only one hand.

[0015] Another aspect of this novel approach is directed to a cup with internal ribs having different internal edge profiles. The internal profiles can be straight, notched, or may have a curved section that extends further radially inward. Since the varying shape of the rib that strikes the top of the flexible pole as the inverted cup is knocked off the pole can change the path of the cup in a random and unpredictable manner, the game is made more interesting, since the defending team will have a more difficult time catching the cup before it strikes the ground.

[0016] Still another aspect is directed to exemplary apparatus for playing a game as described in the method and the apparatus includes components that are generally consistent in function with the steps of the method noted above.

FURTHER EXEMPLARY DETAILS

[0017] An exemplary embodiment of a game that employs a flying projectile can be played by one or more people on

each of two opposing teams. In addition to at least one flying projectile that is thrown by players on a team, the apparatus used in this exemplary embodiment of the game includes four poles. Each pole comprises segments that can be coupled together at a connector and are joined by an elastomeric material. These poles can be collapsed to facilitate storage and transport to and from a location where the game is played. In at least one embodiment, each pole has three colored sections, such as orange, yellow, and white, although other colors or visually perceptible markings such as stripes can be used in the alternative for any of the sections. Each pole is secured vertically, for example, by forcing a pointed lower end of the pole into the ground so that the top of the pole stands about 64-inches above the ground. Four cups are inverted and placed on top of poles (one cup on each pole) when the pole is at rest. The flying projectile can be a disc with an aerodynamic cross section. Examples of suitable flying projectiles include the FRISBEETM flying disc sold by Wham-O, Inc., although other types of aerodynamic flying projectiles, such as AEROBIE™ flying rings that are commercially available from Aerobie, Inc. can also be used. To simplify the following discussion, the term "disc" is used herein instead of the more general term "aerodynamic flying projectile," although it will be understood that the game can be played with other types of aerodynamic flying projectiles, or even a round ball, and it is not intended that the game be limited to use only a flying disc.

[0018] Each team may include one or more players; however, experience has shown that the game can best be enjoyed with two players on each team. In the game, the two sets of poles are disposed about 30 feet apart, at opposite ends of a playing field, so that the poles comprising a set are spaced about 16-inches apart. One inverted cup is placed upon the top of each vertical pole. After setting up the poles and placing the cups on the poles, each team takes turns throwing the disc at their opponent's poles. The offensive team's objective is to strike one or both of the defensive team's poles with the disc, knocking one or both of the cups from the pole(s) to the ground. Points are only awarded when the disc, cup(s) or both hit the ground. The defensive team's objective is to catch the disc and any cup(s) knocked from the pole(s), once one or both of the poles at their end of the playing field have been struck by the disc. By catching the disc and/or cup(s), the defensive team can prevent the offensive team from scoring. However, in this exemplary embodiment, no points are awarded to the defensive team for catching the disc or cup(s). In addition, the defensive team cannot block the disc from striking the pole(s), and any contact by a defensive team member with the disc before it strikes a pole or the ground (without striking a pole) will be viewed as interference, resulting in a repeated throw by the offensive team.

[0019] The colored pole sections have different point values (in regard to where the pole is struck by a thrown disc) as follows: White (bottom section)=1 Point, Gray connector (between white/yellow sections)=1 Point, Yellow (middle section)=2 Points, Gray connector (between yellow/orange sections)=2 Points, Orange (top section including the cup)=3 Points.

[0020] The disc and cup scoring is as follows. When the offensive team strikes a section of the opposing team's pole(s) with the disc, the offensive team is awarded the point value of the colored section hit—but only if the defensive team does not catch the disc before it strikes the ground after hitting the pole. If the offensive team hits both poles with the disc in one

throw, the points scored on each pole are added together—but again, only if the defensive team does not catch the disc before the disc strikes the ground after hitting the pole(s). If the disc strikes a pole and the cup on the pole is knocked off, the defensive team must try to catch both the cup and the disc before both hit the ground. The offensive team is awarded double the point value of the colored section of the pole(s) that they strike if both the cup(s) and disc hit the ground without being caught by the defensive team.

A SCORING EXAMPLE

[0021] The offensive team throws the disc, and it strikes the gray connector between the white and yellow sections of a pole. The cup remains on the pole, but the defensive team does not catch the disc before the disc hits the ground. In this case, one point is awarded to the offensive team. The offensive team throws again, and the disc strikes the orange section of a pole, knocking the cup off the pole. The defensive team catches the cup, but not the disc. In this case, three points are awarded to the offensive team.

[0022] In another turn, the offensive team strikes the white sections of both poles knocking off only one cup. The defensive team catches the cup, but not the disc, and two points are awarded to the offensive team. The offensive team again throws the disc and hits a cup, which is not knocked from the pole, and the disc hits the ground without being caught by the defensive team. In this case, three points are awarded to the offensive team.

[0023] To win, a team must first earn 25 points, and must then knock at least one of the opposing team's cups to the ground. Teams cannot earn more than 25 points, but must keep playing until a team with 25 points has knocked one of the opposing team's cups to the ground (without the cup being caught before it strikes the ground).

[0024] A sudden death scenario can arise if both teams have earned 25 points without either team knocking at least one cup to the ground for a win before the other team has also earned 25 points. In that case, both cups on the defensive team's poles must be knocked to the ground for the offensive team to win. Note that when playing the sudden death scenario, the cups do not have to be knocked off the poles simultaneously, yet once the first cup hits the ground, it is left off the pole. The second cup remains on the pole until it is knocked to the ground for the win.

[0025] This application specifically incorporates by reference the disclosures and drawings of the patent application identified above as a related application.

[0026] This Summary has been provided to introduce a few concepts in a simplified form that are further described in detail below in the Description. However, this Summary is not intended to identify key or essential features of the claimed subject matter, nor is it intended to be used as an aid in determining the scope of the claimed subject matter.

DRAWINGS

[0027] Various aspects and attendant advantages of one or more exemplary embodiments and modifications thereto will become more readily appreciated as the same becomes better understood by reference to the following detailed description, when taken in conjunction with the accompanying drawings, wherein:

[0028] FIG. **1** is a perspective view of a playing field setup for an exemplary embodiment of the present disc throwing

game, showing two sets of poles, with inverted cups positioned on the tops of the poles, to enable game play;

[0029] FIG. **2** is a side elevation view of a pole inserted into the ground, with an inverted cup being placed on top of the pole, in accord with an exemplary embodiment of the present disc throwing game;

[0030] FIG. **3** is a side elevational view of a segmented exemplary embodiment of a pole for use in the present game, showing how the pole can be separated and collapsed for ease of transport and/or storage;

[0031] FIG. 4 is a side elevational view of one of the inverted cups shown in FIG. 1;

[0032] FIG. **5** is a cross-sectional view of a disc suitable for use in playing the present game;

[0033] FIG. **6** is a phantom view of the pole and inverted cup of the present invention showing randomized internal notched, protruded, and straight-edged ribs that are included to produce a random flight path of the cup when it is knocked from the top of the pole;

[0034] FIG. 7 is a side view of the profile of each internal rib shape of the ribs included inside the cup;

[0035] FIG. **8** is a side elevational view of one of the poles and the inverted cup with a phantom view of the different flight paths that might be followed when the cup is projected unpredictably from the top of the bending pole after the pole is struck by the disc, in accord with an exemplary embodiment;

[0036] FIG. **9** is an isometric view of an alternative embodiment in which the pole and the inverted cup are supported vertically in a stand on a hard surface, rather than the pole being inserted into the ground;

[0037] FIG. **10** is a block diagram illustrating the point count for different conditions, including one in which the disc strikes a yellow section of one pole, deflects, and strikes a yellow section of the other pole;

[0038] FIG. **11** is a block diagram illustrating the point count for different conditions, including one in which the disc strikes a white section of one pole;

[0039] FIG. **12** is a block diagram illustrating the point count for different conditions, including one in which the disc strikes an orange section of one pole;

[0040] FIG. **13** is a block diagram illustrating the point count for different conditions, including one in which the disc strikes a cup of one pole;

[0041] FIG. **14** is a block diagram illustrating the point count for different conditions, including one in which the disc strikes a gray connector between a yellow and an orange section on one pole;

[0042] FIG. **15** is a block diagram illustrating the point count for different conditions, including one in which the disc strikes a gray connector between a white and a yellow section on one pole; and

[0043] FIG. **16** is a block diagram illustrating the point count for different conditions, including one in which the disc bounces off the ground and then hits the white section of one pole.

DESCRIPTION

Figures and Disclosed Embodiments are not Limiting

[0044] Exemplary embodiments are illustrated in referenced Figures of the drawings. It is intended that the embodiments and Figures disclosed herein are to be considered illus-

trative rather than restrictive. No limitation on the scope of the technology and of the claims that follow is to be imputed to the examples shown in the drawings and discussed herein. Further, it should be understood that any feature of one embodiment disclosed herein can be combined with one or more features of any other embodiment that is disclosed, unless otherwise indicated.

Components of the Game

[0045] FIG. 1 shows an exemplary embodiment in which four poles 12 have been forced into ground 28 to stand vertically and serve as targets. Two sets of poles 12 are placed 30 feet apart as indicated by a reference number 24, and the two poles in each set are spaced about 16-inches apart, as indicated by a reference number 22. There are four cups 10. Cups 10 are inverted and placed on top of poles 12—one cup per pole. A team 18 has two players, including a player 1, identified by reference number 18a, and a player 2, identified by a reference number 18b. A team 19 also has two players, including a player 1, identified by a reference number 19a, and a player 2, identified by a reference number 19b. The players on team 18 are shown standing behind their respective set of poles 12 facing opposing team 19. The players on team 19 are also shown standing behind their respective poles 12, facing opposing team 18. Player 18a and player 18b of team 18 are standing behind a throwing line 20a that extends through their respective poles 12 at their end of the playing field. Player 19a and player 19b on team 19 are also shown standing behind a throwing line 20b that extends through their respective poles 12.

[0046] An example is shown in FIG. 1, where disc 16 is traveling along a path 26 that was thrown by player 18a of team 18 and striking a pole 12 on the opposing team 19, causing the pole 12 to bend, as indicated by a reference number 12a and knock the inverted cup 10 off the bending pole 12a in a random unpredictable path 14.

[0047] FIG. 2 displays a front view of pole 12 with an inverted cup 10 being placed on top of the pole 12 in a direction 11. The pole 12 connects with a top section 70 that is inserted into a top connector 90 in a direction 13, and a middle section 72 inserted into a bottom connector 92 in a direction 15. A bottom section 74 of pole 12 is inserted vertically into ground 28 in a direction 17; a sharpened tip 76on the bottom of pole 12 eases the insertion. A top connector 90 is connected to the top portion of middle section 72 and a bottom connector 92 is connected to the top portion of bottom section 74. Top connector 90 is 2.5-inches tall. The material used for the posts is a non-abrasive polymer; thus, top section 70 is smoothly inserted into top connector 90 in a direction 13. Bottom connector 92 is also 2.5-inches in length and is also formed of a non-abrasive polymer, so middle section 72 can be smoothly be inserted into the bottom connector 92 in a direction 15. Both top connector 90 and bottom connector 92 are the color gray. Top section 70 and middle section 72 of the pole 12 are hollow and are pulled together with an elastic cord 80, which runs inside top section 70 and middle section 72. One end of the elastic cord 80 is tied at the top portion of the top section 70 and opposite end of the elastic cord 80 is captured inside the middle of the bottom connector 92. The top end portion of top section 70 includes a pressed-on end cap 60 to cover the tied end of the elastic cord 80. End cap 60 is 1-inch tall. The material from which end cap 60 is formed is also a non-abrasive polymer so that cup 10 in FIG. 1 can readily slide off bending pole 12a in FIG. 1.

[0048] In this exemplary embodiment, sections 70 and 72 are about 22-inches in length and have a diameter of 0.32-inches. Section 74 is 31-inches in length and has a diameter of 0.32-inches. Sections 70, 72, and 74 are highly flexible since they have a small diameter of about 0.32-inches. Also, the material is highly flexible fiberglass. Sections 70, 72, and 74 are colored differently for visual distinction and for different point value assignment. Section 70 is an orange color, section 72 is a yellow color, and section 74 is a white color. In FIG. 1, the bending pole 12a is a result of the small diameter and the highly flexible fiberglass of sections 70, 72, and 74. Because pole 12a bends when struck, as shown in FIG. 1, inverted cup 10 in FIG. 1 can fly off the pole aggressively, in a variable or random direction.

[0049] FIG. 3 displays pole 12, showing it separated, so that it can be collapsed for transport or storage. In this Figure, pole 12 is separated between bottom connector 92 and the bottom portion of the middle section 72, connected only by elastic cord 80, so that pole 12 is folded only in a direction 21. Pole 12 is also separated at top connector 90 and the bottom portion of top section 70, connected only by elastic cord 80 and pole 12, enabling that portion of the pole to be folded in a direction 23.

[0050] FIG. 4 displays a side view of inverted cup 10. Inverted cups 10 are placed on top of poles 12, as shown in FIG. 1. Because the cups are inverted, they stay on top of poles 12 until a well thrown disc knocks an inverted cup from a pole. Inverted cup 10 is rounded at a top 40 for safety (to avoid injury if someone inadvertently contacts the top). Inverted cup 10 tapers outwardly towards a bottom 50 to facilitate placement on pole 12, again as shown in FIG. 1, and to enable inverted cup 10 to more readily be knocked off the top of pole 12 in an unpredictable fashion, when the pole or inverted cup is struck by the disc. Cup 10 is circular and is 4-inches in diameter at bottom 50. Top 40 portion of cup 10 has a radius of 1.25-inches and the cup is 5.5-inches tall. Cup 10 is fabricated of a non-abrasive polymer. As a result, if cup 10 is knocked off pole 12a, when the pole bends as shown in FIG. 1, the inverted cup slides smoothly off end cap 60 in FIG. 2 with very little friction. Cup 10 is orange in color to match the color of top section 70 in FIG. 2 and has the same point value assignment.

[0051] FIG. **5** is a cross-sectional view of disc **16**, which is used as a throwing object by team **18** and team **19**, when competing in the game, as shown in FIG. **1**. As will be evident in this Figure, disc **16** has an aerodynamic cross section, which provides aerodynamic lift when the disc is thrown in the traditional manner. Each team player takes turns throwing disc **16**, in attempting to strike pole(s) **12** (or inverted cups **10**) at the opposite end of the playing field, in order to score points. In at least one exemplary embodiment, disc **16** has a weight of about 125 grams and a diameter of about 9.5 inches. However, it will be understood, that these parameters are simply illustrative and are not intended to be limiting on the types of aerodynamic (or other) flying projectiles that can be used for playing the present game.

[0052] FIG. 6 a phantom view of top section 70 of pole 12 and inverted cup 10, which is shown resting on top of pole 12. This Figure illustrates the internal structure of top portion 40 of inverted cup 10, showing a plurality of ribs 100 that are disposed therein. The ribs are spaced-apart around the internal circumference of cup 10, extending radially and then longitudinally along the inner surface of the cup. Successive ribs 100 differ, since the edges of the ribs can be notched, protrude outwardly, or extend straight. Ribs 100 are shaped at their upper end (at the bottom of cup 10 when it is not inverted) and are angled and spaced-apart in such a fashion that cap 60 always centers itself in the center of the top portion 40 of inverted cup 10 and does not become wedged between ribs 100 when the inverted cup 10 is placed on top of the pole 12.

[0053] Inverted cup 10 can be placed at any rotational position on top of pole 12. When disc 16 strikes pole 12, the path that cup 10 can take when knocked from the pole can be in an undetermined direction due to the variable and randomized geometry of ribs 100 interacting with the top of pole 12. The randomized positions of the notched, protruding, and straight edges of ribs 100 that interact with the top of the pole cause the inverted cup 10 to fly off pole 12 in an unpredictable fashion when the pole is struck by disc 16, as indicated in FIG. 6 by the plurality of phantom arrows. As a result of this unpredictable action, the defensive team cannot readily predict or determine the direction or path that inverted cup 10 will follow when pole 12 is struck by disc 16 with sufficient force to knock the inverted cup off the pole.

[0054] FIG. 7 displays a side (profile) view of each rib 100 also shown in FIG. 6. Each rib 100 has an edge with a notch 204, 206, an edge with a protrusion 200, 202, or an edge 208 that is straight. The protrusion and/or notch can be disposed at different points along the inner side of the rib. More specifically, a rib 100a has a protrusion 200 at the bottom portion, which interrupts the linear sliding action of cap 60 (shown in FIG. 6) against rib 100a when disc 16 strikes pole 12. Rib 100a can cause the inverted cup 10 to fly off pole 12 in FIG. 1 in a variable direction based on the location of protrusion 200. The different location of protrusion 202, which is located at the bottom middle portion of rib 100b (instead of the bottom portion shown with protrusion 200 on rib 100a) interacts with cap 60 in a different manner, to cause cup 10 to fly in a different random path. Ribs 100a and 100b both interact with cap 60 (shown in FIG. 6) but at different points in time, so that the two ribs cause different results in the path of the cup. Rib 100c has notch 204 along its bottom portion, which affects the sliding action of cap 60 over the edge of the rib, as shown in FIG. 6, when disc 16 strikes pole 12 and knocks cup 10 from the pole. Rib 100c can affect the path of inverted cup 10 as it flies off pole 12 in a given direction based on the location of notch 204. Notch 206 on rib 100d is disposed at a different location along the edge of the rib, at the bottom middle portion of the rib, in contrast with the location of notch 204 on rib 100c. Ribs 100c and 100d both interact with cap 60, but at different points in time as cup 10 flies off pole 12 when disc 16 strikes the pole. Rib 100e has a straight edge 208 without a notch or a protrusion. The nature of the sliding action of cap 60 along straight edge 208 of rib 100e will be affected by the angle of the rib 100e, but the path of the cup flying from atop the pole will not be affected in the same way as caused by the interaction with the cap of the notch or the protrusion on the other ribs. Similarly, the angle of each of the other internal ribs 100 along the internal surface of inverted cup 10 can also affect the path of cup 10 when it is knocked off pole 12 by disc 16.

[0055] FIG. 8 displays pole 12 and inverted cup 10 in a state of rest and a phantom view of disc 16 striking pole 12 in a direction 26, causing pole 12 to bend and produce any of a number of unpredictable and random paths 14 of cup 10 as it flies from atop the pole. The lower end of pole 12 and bending pole 12a are shown thrust into and standing vertically in

ground **28**. Cup **10** is knocked off the bending pole 12a in a path based on the nature of how disc **16** struck the pole **12**, and how ribs **100** inside inverted cup **10** were rotationally oriented, which determines the specific one or more ribs that interact with cap **60**.

[0056] FIG. 9 displays an alternative exemplary embodiment that also includes inverted cup 10 on top of pole 12. In this embodiment, the bottom of the pole is inserted into a weighted and/or suction base 30. A bottom section 74 of pole 12 has pointed tip 76 inserted into an orifice 32 of a top section 34 of weighted and/or suction base 30, in a direction 17. The weighted and/or suction base 30 can be seated onto a hard surface 38 in a direction 25. A lip section 36 of weighted and/or suction base 30 is made of an elastomeric material, so that it can flex and create a seal (with suction), with hard surface 38. Once weighted and/or suction base 30, pole 12, and inverted cup 10 are in place, pole 12 functions the same when pole 12 is struck by disc 16, as discussed above. The game setup in FIG. 1 thus also applies to the exemplary embodiment of FIG. 9 that has the weighted and/or suction base to support the pole vertically. An example of where the weighted and/or suction base 30 could be used is on a smooth gym floor or a smooth tennis court. The weight and/or suction characteristic of base 30 provides vertical stability for pole 12 so that the pole flexes when struck by a disc 16, but does not fall over. The weighted characteristic of base 30 also provides stability for the pole to stand in a vertical position on surfaces where a suction with the surface cannot be established, such as a rough cement or gravel surface. The weighted nature of the base 30 provides a way to hold pole 12 in a vertical position on different surfaces when the pole cannot be inserted into a penetrable surface. Weighted and/or suction base 30 adds versatility, by enabling the game to be played on almost any play field of sufficient size.

[0057] It should be noted that there are several options that can affect the difficulty of the game. By mutual consent of the teams playing the game, any one or more of these options can be changed to vary the difficulty level. For example, the length of the playing field, as measured between the poles positioned at opposite ends of the playing field can be either increased to increase the difficulty of the game or decreased to decrease the difficulty. Also, a spacing between the poles at each end of the playing field can be either increased or decreased. Since the likelihood of striking two posts with the disc during a single throw is reduced if the posts are spread further apart, it will be apparent that increasing the spread distance will likely reduce the opportunity for this event to occur. Further, the predetermined number of points that must be accumulated by a team to win the game can either be increased or decreased, and the requirement that a cup be knocked off a post and hit the ground without being caught can be relaxed to vary the difficulty for winning a game.

[0058] FIGS. **10-16** illustrate rules that can be used for scoring, based upon different conditions that can occur during the game. In FIG. **10**, a block diagram **300** illustrates the possibilities and scores associated with the game that include the condition in which, as shown in a block **306**, the disc is thrown, as indicated in a block **302**, and the disc hits the yellow section on one of the poles, deflects, and then hits the yellow section on the other pole. To simplify the explanations, other conditions in which the disc hits both poles are not specifically enumerated, but it should be apparent, based on the following discussion, how the disc hitting different color sections on two poles will be scored. The other scoring possibilities shown in the Figure, that might occur when the disc is thrown, are indicated in a block **304**, in which the disc misses both poles, scoring 0 points, and in a block **308**, in

which the disc bounces off the ground, missing both poles and also scoring 0 points. The remaining blocks 310-344 in FIG. 10 are all alternative conditions that can occur if the disc hits the yellow sections on both poles, as indicated in block 306. For example, in the first column on the left, blocks 310-316 cover the conditions in which both cups are projected from the tops of both of the poles. In block 310, if both cups and the disc are caught, the offensive team receives 0 points; 2 points are awarded in each of blocks 312 and 314, if the disc and one cup are caught. In block 316, 4 points are awarded if the defending team catches only the disc (and both cups hit the ground). Blocks 318-324 cover the condition where both cups are knocked from the poles and the disc hits the ground. In block 318, 4 points are awarded if both cups are caught. Six points are awarded in blocks 320 and 322 if one of the cups is caught, but the other cup and the disc hit the ground. In block 324, 8 points are awarded if both cups and the disc hit the ground. In a block 326, 0 points are awarded if both cups stay on the pole and the disc is caught, while in a block 328, 4 points are awarded if both cups stay on the poles, but the disc hits the ground.

[0059] Blocks 330-344 cover the condition where one of the cups is knocked off the pole, but the other cup is not. In blocks 330 and 338, the cup and the disc are caught by the defending team, so no points are awarded. In blocks 332 and 340, 2 points are awarded if the disc is caught, but the cup hits the ground. In blocks 334 and 342, 4 points are awarded if the cup is caught, but the disc hits the ground. Finally, in blocks 336 and 344, 6 points are awarded if both the cup and the disc hit the ground.

[0060] Conditions 350 shown in FIG. 11 include the condition in which, after being thrown in block 302, in a block 352, the disc hits the white section of one pole, as well as the alternatives, of blocks 304 and 308 in which the disc misses both poles. Under block 352, 0 points are awarded in a block 354 in which the cup stays on the pole that was hit and the disc is caught. One point is awarded in blocks 356, 360, and 362. In block 356, the cup stays on the pole and the disc is caught (block 356), and respectively, the cup hits the ground while the disc is caught (block 360), and the disc hits the ground while the cup is caught (block 362). Two points are awarded in a block 358, when the cup is knocked off the pole hit, and both the disc and cup hit the ground. Finally, in a block 364, if the cup is knocked from the pole, and both the cup and disc are caught, 0 points are awarded.

[0061] Conditions 370 shown in FIG. 12 include a block 372, in which the disc hits the orange section of one pole, after being thrown in block 302. Alternatives are noted in blocks 304 (disc misses both poles-0 points) and in block 308 (disc bounces from ground and misses both poles-also 0 points). As possible results of the condition in block 372, 0 points are awarded if the cup stays on the pole and the disc is caught in block 354, or if the cup is knocked off the pole and both the cup and the disc are caught, in block 364. Three points are awarded in a block 374, if the cup stays on the pole and the disc hits the ground, or in a block 378, if the cup is knocked off of the pole and is caught, while the disc hits the ground, or in a block 380 if the cup is knocked off of the pole and hits the ground, while the disc is caught. Finally, in a block 376, 6 points are awarded if the cup is knocked from the pole and both the cup and the disc hit the ground.

[0062] FIG. 13 shows conditions 390, which include a block 392 in which the disc hits the orange cup of one pole. The alternatives of blocks 304 and 308 are also shown, where the disc misses both poles (block 304) and hits the ground before missing both poles (block 308), both of which result in 0 points being awarded. Under block 302, 0 points are

awarded in blocks **354** and **364**, where the cup stays on the pole and the disc is caught (block **354**), or the cup is knocked from the pole and both the disc and cup are caught (block **364**). Three points are awarded in blocks **374**, **378**, and **380**, if the cup stays on the pole, while the disc hits the ground (block **374**), the cup is knocked off the pole and is caught, while the disc hits the ground (block **378**), or the cup is knocked off the pole and hits the ground, while the disc is caught (block **380**). Six points are awarded in a block **376** if the cup is knocked off of the pole, but neither it or the disc are caught.

[0063] In FIG. 14, conditions 400 include a block 402, where after the disc is thrown in block 302, the disc hits the gray connector between the yellow and orange sections on one pole. The other conditions noted above in blocks 304 and 308 are alternatives to condition 402. Under block 402 are blocks 354 and 364, where 0 points are awarded, as discussed above. Two points are awarded in blocks 404, 408, and 410, when the cup stays on the pole, while the disc is NOT caught (block 404), or the cup is knocked off the pole, and either the cup hits the ground, while the disc is caught (block 408) or the disc hits the ground, while the cup is caught (block 410). In a block 406, 4 points are awarded if the cup is knocked from the pole, and both the cup and disc hit the ground.

[0064] FIG. 15 illustrates blocks 420, which include a block 422 indicating that the disc hits the gray connector between the white and yellow sections on one pole, after being thrown in block 302. Again, the alternatives in blocks 304 and 308 are included, as discussed above. Under block 422, 0 points are again awarded in blocks 354 and 364, as noted above. One point is awarded in blocks 356, 360, and 362, for the conditions where the cup stays on the pole and the disc hits the ground, while the disc is caught (block 360), or the cup is knocked off and is caught, while the disc hits the ground. Block 358 covers the condition where 2 points are awarded if the cup is knocked off and both it and the disc hit the ground without being caught.

[0065] Finally, in FIG. 16, blocks 430 include a block 432 in which the disc bounces off the ground and hits the white section of one pole. Alternatives in blocks 304 and 308 are again included, as discussed above. Under block 432, 0 points are awarded in blocks 354 and 364, for the conditions discussed above. One point is awarded in blocks 356, 360, and 362, and 2 points are awarded in block 358, all as discussed above. Clearly, there are other conditions that are not covered by the Figures discussed above; however, it should be apparent to one of ordinary skill how to score each of these other conditions, based on the information provided. It should also be emphasized that the scoring is simply intended to be exemplary and should not be considered in any way to be limiting on the scope of game play that can be implemented in regard to the present game. For example, as an alternative to the condition in block 432 of FIG. 16 and those that follow below it, 0 points might be awarded if the disc hits the ground before striking any part of a pole or the cup-even if the cup is knocked from the pole. Other variations in the scoring of the game, including changes to the total required score and/or the requirement to knock a cup from a pole after accumulating the required number of points, to win a game.

[0066] Although the concepts disclosed herein have been described in connection with the preferred form of practicing them and modifications thereto, those of ordinary skill in the art will understand that many other modifications can be made thereto within the scope of the claims that follow. Accordingly, it is not intended that the scope of these con-

cepts in any way be limited by the above description, but instead be determined entirely by reference to the claims that follow.

The invention in which an exclusive right is claimed is defined by the following:

1. A method for enabling a plurality of teams to compete while playing a game with a thrown projectile, comprising the steps of:

- (a) positioning a plurality of flexible poles at opposite ends of a playing field, wherein each flexible pole has a plurality of longitudinal segments having different visual markings, and wherein at least two flexible poles are spaced apart from each other at one end of the playing field, and at least two other flexible poles are spaced apart from each other at the opposite end of the playing field, so that at least one of the teams defends the flexible poles positioned at one end of the playing field, and at least one other team defends the flexible poles positioned at the opposite end of the field;
- (b) placing an inverted cup on a top of each of the plurality of flexible poles;
- (c) enabling players on the teams to take turns throwing a projectile from one end of the playing field toward the flexible poles at the opposite end of the playing field in an attempt to knock the inverted cup on one or more of the flexible poles off so that it falls to the ground, striking at least one of the flexible pole on which the inverted cup is disposed and the inverted cup with the projectile that was thrown;
- (d) awarding points to a player of the team that strikes a flexible pole or inverted cup with the thrown projectile, wherein the number of points that are awarded depends at least in part upon:
 - (i) a specific longitudinal segment of the flexible pole that was struck with the projectile, each different longitudinal segment of a flexible pole having a different point value associated with it;
 - (ii) whether an inverted cup was knocked off the flexible pole by the projectile that was thrown, so that the inverted cup struck the ground without being caught by a player on the team defending the flexible poles at which the projectile was thrown; and
 - (iii) whether the projectile was caught by a player on the team defending the flexible poles at which the projectile was thrown, after the projectile struck a flexible pole or an inverted cup and before striking the ground; and
- (e) determining a winner of the game at least in part based on the number of points accumulated by each team.

2. The method of claim 1, further comprising the step of associating a point value with each different longitudinal segment of a flexible pole, wherein the point value increases from a minimum for a longitudinal segment closest to the ground, to a maximum for a longitudinal segment closest to the top of the flexible pole.

3. The method of claim **1**, further comprising the step of coloring each different longitudinal segment of the flexible poles a different color to visually distinguish the longitudinal segments of a flexible pole from each other, enabling the specific longitudinal segment struck by the projectile that was thrown to be more readily visually determined.

4. The method of claim **1**, further comprising the step of awarding points to the team that threw the projectile, for striking an inverted cup, even if the inverted cup remains on

the flexible pole, unless, after striking the inverted cup, the projectile is caught by a player on the team defending the flexible poles at which the projectile was thrown.

5. The method of claim **1**, wherein if an inverted cup is knocked from a flexible pole and strikes the ground, further comprising the step of increasing the number of points awarded, for striking a longitudinal segment or the inverted cup with the projectile.

6. The method of claim 5, wherein the step of increasing the number of points awarded if an inverted cup is knocked from a flexible pole and strikes the ground comprises the step of doubling the points awarded, for striking at least one of the longitudinal sections and the inverted cup with the projectile.

7. The method of claim 1, further comprising the steps of adding points for each longitudinal segment of different flexible poles struck by the projectile that was thrown, to determine the total points awarded the player throwing the projectile.

8. The method of claim 1, wherein the step of determining the winner of the game comprises the step of identifying as the winner, the team that first accumulated a predetermined number of points and also then knocked an inverted cup from the top of one of the flexible poles, without the inverted cup being caught before striking the ground.

9. The method of claim 8, wherein if both teams have accumulated the predetermined number of points before one of the teams also knocks an inverted cup off of a flexible pole that then strikes the ground without being caught, the step of determining the winner of the game further comprises the step determining that the winner of the game is the first team to knock a plurality of inverted cups from the flexible poles that then strike the ground without being caught.

10. The method of claim 1, wherein the step of awarding points further comprises the step of awarding the points even if the projectile first strikes the ground before striking the flexible pole or the inverted cup.

11. The method of claim 1, further comprising the step of using an aerodynamic projectile that generates lift due to its cross-sectional profile.

12. The method of claim 1, further comprising the step of providing a plurality of inwardly extending ribs running longitudinally along an inner surface of the inverted cups, adjacent to a closed end of the inverted cup, the plurality of ribs having inner edges with a plurality of different shape profiles, so that when the inverted cup is knocked from the flexible pole by the projectile, the inverted cup follows a random and unpredictable path, making the inverted cup more difficult for the team defending the flexible poles to catch before the inverted cup strikes the ground.

13. The method of claim **1**, further comprising the step of enabling the teams by mutual agreement to alter the difficulty of the game by varying or stipulating at least one of:

- (a) a length of the playing field as measured between the plurality of flexible posts positioned at opposite ends of the playing field;
- (b) a spacing between the flexible poles at each end of the playing field;
- (c) a predetermined number of points that must be accumulated by a team to win the game;
- (d) not requiring that an inverted cup be knocked from a flexible pole after the predetermined number of points is accumulated; and

(e) requiring that at least one of the projectile and any falling inverted cup be caught by a defending player using only one hand.

14. A cup for use in a game in which players attempt to throw a projectile at a flexible pole on which the cup is placed in an inverted orientation, so as to knock the cup from the pole, comprising:

- (a) a hollow component that tapers inwardly from an open end having a larger outer perimeter, to a closed end having a smaller outer perimeter; and
- (b) a plurality of internal, longitudinally extending ribs disposed along an internal surface of the hollow component, adjacent to the closed end, and extending radially inward from the internal surface of hollow component, inner edges of said plurality of ribs having a plurality of different configurations, wherein the plurality of different configurations of the inner edges cause the cup to follow a random path when knocked from the flexible pole, due to an unpredictable interaction of the inner edge of one or more of the plurality of ribs with the flexible pole as the cup is knocked from the flexible pole, so that it is more difficult to catch the cup before the cup strikes the ground.

15. The cup of claim **14**, wherein the plurality of ribs include ribs with at least one of the following profiles along the inner edge:

- (a) a straight profile;
- (b) a notched profile in which a notch is formed in the inner edge to alter the straight profile; and
- (c) an outwardly extending profile in which a curved portion of the rib extends radially inwardly further than the straight profile.

16. The cup of claim **15**, in which the notch in different ribs is disposed at different longitudinal positions along the inner edges of each of the different ribs.

17. The cup of claim 15, in which the curved portion in different ribs is disposed at different longitudinal positions along the inner edges of each of the different ribs.

18. The cup of claim 14, wherein the closed end of the hollow component is convex, so that a rounded surface is presented when the hollow component is inverted and placed on top of a pole.

19. Apparatus for a game played by a plurality of players on at least two teams, in which the players take turns throwing a projectile from opposite ends of a playing field, comprising:

- (a) a plurality of flexible posts that are configured to be supported in a generally vertical position, with at least two flexible posts positioned spaced apart from each other at one of the playing field and at least two flexible posts positioned spaced apart from each other at the opposite end of the playing field, wherein each of the flexible posts comprises a plurality of differently marked longitudinal segments, a different point value being associated with each of the longitudinally segments of the flexible posts; and
- (b) a plurality of cups, each cup having a hollow interior configured when inverted to be inserted over and supported on the top of one of the vertical flexible posts, wherein when struck by a projectile thrown by a player on one team at one end of the playing field, toward the flexible posts at the opposite end of the playing field, the cup may be knocked from the flexible posts, and wherein the points awarded to the player throwing the projectile depend upon:

- (i) the segment of the flexible post that is struck by the projectile;
- (ii) whether the cup is knocked from the flexible post and strikes the ground without being caught by a player on a team defending the flexible posts toward which the projectile is thrown; and
- (iii) whether after the projectile strikes a flexible pole or an inverted cup, the projectile was caught by a player on the team defending the flexible poles at which the projectile was thrown before the projectile strikes the ground.

20. The apparatus of claim **19**, wherein the hollow interior of the cup includes a plurality of ribs extending radially inward and longitudinally along an inner surface of the cup, an inner edge of the plurality of ribs having differently shaped profiles so that as the cup is knocked from the top of a flexible pole, the cup travels along a random and unpredictable path, making the cup more difficult to catch before the cup strikes the ground.

21. The apparatus of claim **20**, wherein the differently shaped profiles include at least one of:

(a) a straight profile;

- (b) a notched profile in which a notch is formed in the inner edge to alter the straight profile; and
- (c) an outwardly extending profile in which a curved portion of the rib extends radially inwardly further than the straight profile.

22. The apparatus of claim **19**, wherein the cup includes a convex closed end so that a curved surface of the cup overlies the top of the flexible pole on which the cup is inverted.

23. The apparatus of claim 19, wherein ends of the longitudinal segments of the flexible poles are removably affixed to each other using connectors and wherein the longitudinal segments include an elastomeric member that extends internally within the longitudinal segments and connectors and flexibly couples the longitudinal segments together when they are not affixed together at a connector to form the flexible pole, the elastomeric member enabling the longitudinal segments of a flexible pole to be positioned in generally parallel relationship, adjacent to each other, forming a compact configuration for transport and storage.

24. The apparatus of claim **19**, wherein the plurality of different marked segments of each flexible pole are a different color so that a specific segment struck by the projectile can readily be visually identified.

25. The apparatus of claim **19**, wherein a lower end of each flexible pole has a point to enable the lower end of the flexible pole to be forced into the ground to support the flexible pole in a generally vertical orientation.

26. The apparatus of claim 19, further comprising a plurality of bases, including one for each flexible pole, each base including an opening into which a lower end of a flexible pole can be inserted, the bases having sufficient weight to support the flexible poles in a generally vertical orientation.

27. The apparatus of claim 19, further comprising a plurality of bases, including one for each flexible pole, each base including an opening into which a lower end of a flexible pole can be inserted and being formed of an elastomeric material that conforms to an underlying surface to provide a suction coupling of the base to the underlying surface so as to support the flexible pole in a generally vertical orientation.

* * * *