PROJECTILE AND TARGET HAVING A RESILIENT FRICTIONAL RESISTANT SURFACE CAUSING AN IMPINGING PROJECTILE TO BOUNCE BACK TOWARD THE PROJECTOR

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ABSTRACT

A game pad and a plurality of discs in which the pad is comprised of a sheet of resilient material such as polyurethane and the pad is provided with a central aperture or pocket. In use the pad is positioned in a horizontal solidly backed position upon the floor or ground and a plurality of discs similar in size and weight to a penny are utilized to be tossed from a distant point into the pocket on the pad. Because the pad is formed of a resilient polyurethane material having the property of instant recoil, a surface friction to resist slippage of the projectile upon the pad is inherently developed and the resultant compressive force caused by the force of the impinging projectile is great enough to bounce the projectile forwardly in its original line of trajectory and away from the surface of the pad.

7 Claims, 7 Drawing Figures
PROJECTILE AND TARGET HAVING A RESILIENT SURFACE CAUSING AN IMPINGING PROJECTILE TO BOUNCE BACK TOWARD THE PROJECTOR

This invention relates to a resilient pad used for a toss game and more particularly to a pad positioned to receive a pitched projectile that will not stick, pierce, or adhere to the pad but will bounce from the surface of said pad unless the projectile lands in a target pocket. The pad must be supported on a solid backing to provide a proper recoil and bounce for all projectiles hitting the pad. The pad is intended to be used with various games in which the projectile is thrown, pitched or forced through the air at a target.

It is an object of this invention to provide a pad for a game in which the projectiles are fired or tossed upon the pad and the characteristics of the pad introduces new conditions and hazards that will produce greater interest and the desire to overcome all of the varying conditions and hazards.

It is a further object of this invention to provide a resilient pad to be placed upon the floor or ground as the area to which a projectile must be fired or tossed and a single pocket or aperture in the pad as the target to receive and hold the fired or tossed projectile.

It is a further object of this invention to provide a resilient pad to be placed in a horizontal position upon the floor or ground as the area to which a projectile is fired or thrown and a single line across the pad as the limit of the trajectory of the projectile.

It is a further object of this invention to provide a resilient pad to be positioned in an angular attitude with a target to which a projectile is aimed and the pad area surrounds the target.

It is a further object of this invention to provide a resilient pad to be placed upon the floor or ground as the area to which the projectile must be fired or tossed and a plurality of pockets or apertures in the pad as the targets to receive and hold the projectiles.

It is a further object of this invention to provide a projectile in the form of a flat disc having a reasonable degree of weight so that the impact of the projectile upon the pad will produce a compression of the pad and due to the resistance reaction of the pad produce a bounce of the projectile.

A still further object of this invention is to provide a resilient pad with entirely new characteristics to introduce new conditions to a game, the characteristic being a recoil by the pad to the impact of a projectile to produce a bounce in an opposite or nearly opposite direction to the trajectory of the projectile.

A still further object of this invention is to provide a resilient pad to be placed upon a solid backing such as the floor or ground as the area to which a projectile is to be fired or tossed and a single pocket or aperture in the pad as the target to receive and hold the impacting projectile, but in addition other pockets or apertures may be spaced about the pad that will also receive and hold the projectiles, but these pockets shall be marked penalty pockets.

A still further object of this invention is to provide a resilient pad to be placed upon a solid backing such as the floor or ground as the area to which a projectile must be fired or tossed and a plurality of pockets or apertures in the pad as the targets to receive and hold the impacting projectiles, but said pockets shall have different values or conditions.

A still further object of this invention is to provide a resilient pad to be placed upon a solid backing such as the floor or ground as the area to which a projectile is to be fired or tossed and in addition a ground cloth or soft sheet surrounding said pad, said pad having thereon or therein a target and said ground cloth marked so as to divide it into a plurality of areas with each area marked for identification to receive any projectile that shall bounce from said pad onto said ground cloth.

Other objects of this invention shall be apparent by reference to the accompanying detailed description and the drawings in which

FIG. 1 is a plan view of a playing pad,
FIG. 2 is a plan view of a different shaped pad,
FIG. 3 is a plan view of a still different shaped pad,
FIG. 4 is a cross sectional view taken on line 4—4 of FIG. 1,
FIG. 5 is a plan view of a further embodiment of said pad,
FIG. 6 is a plan view of a still further embodiment of said pad, and
FIG. 7 is a perspective view of a circular disc shaped Projectile.

The simplest application of the pad to a game is shown in FIG. 1 in which there is illustrated a pad 10 with a target in the form of an aperture 11 cut or formed in the pad. The aperture 11 may be placed anywhere on the pad as desired. The pad 10 is primarily a block of resilient material of a desired thickness and having a recoil from compression produced by the impact of a predetermined weighted projectile upon its surface. The thickness, density and resiliency of the pad plus the weight or impact of the projectile determines the degree of recoil. A pad of foam rubber or foam plastic may be used to provide this result. For example a pad of polyurethane of about 1 inch thickness may be used and its size may vary as desired. However a pad of about 24 feet x 24 feet is ample for the game to be described herein. The polyurethane also provides a surface resistance that is necessary, that is, there is a frictional resistance to the impacting projectile that prevents a sliding or slipping of the projectile over the surface of the pad. It is also necessary to provide a projectile 12 (FIG. 2) with a surface that will not pierce or stick to the pad. It is also desirable that the projectile have sufficient weight or force when tossed to produce the desired degree of compression in said pad to produce a sufficient degree of recoil action to bounce said projectile. The bounce of said projectile is governed by these various factors such as the composition of said pad (as illustrated a soft flexible polyurethane pad), the thickness and the density. The weight of the projectile and the toss or transitory produces the degree of impact force which is also the means of determining the degree of compression in said pad and thus the resulting recoil or bounce. The surface tension or frictional resistance is also to be considered as too little frictional resistance will allow the projectile to slide or slip and the deflection of its path or trajectory may be the only result. If the weight of the projectile is correct and its shape and surface providing impact without piercing or adhering, then the projectile will bounce in an opposite or nearly opposite direction to the trajectory of the tossed or fired projectile after impact with the surface of the pad. The shape of the pro-
jectile may vary as long as the weight is in relation to the desired bounce and the surface tension with the pad is maintained. One example of an ideal projectile is a metal washer about the size of a penny and a weight about the equivalent to a penny plus or minus an ounce. The weight and size may vary as the characteristics of the pad vary, that is, a pad with more bounce or recoil will permit a heavier projectile (washer) and vice versa a pad with less recoil permits a lighter projectile.

The game has many variations however the simplest form is as illustrated in FIG. 1 in which the resilient (polyurethane) pad of an approximate 1 inch thickness and a soft but instant recoil characteristic, is laid flat upon the floor or ground and the players positioned a reasonable distance away. Each player having one or more washers 12 (about the size and weight of a penny). It is preferably to have the washer out-of-round to prevent rolling of the washer after it bounces, or coating the washer with a rubber coating to inhibit the slide or roll of the washer. Each player in turn may toss a projectile 12 toward the pad 10 trying to drop the projectile in the aperture or pocket 11. Any projectile 12 that stays in the pocket 11 is a winner or shares the win with any other player who also drops his or her projectile in the pocket. The projectiles tossed at the pad that do not drop in the pocket 11 will bounce and surprisingly tend to bounce back. In any game two or more players may participate. The game may be played that the winner must drop a projectile in the pocket, or it may be played that, lacking a direct hit into the pocket, the projectile remaining closest to the pocket may be the winner. As a further embodiment a zone X indicated in dotted lines and divided into marked areas may surround the pad and all projectiles landing in zone X may be claimed that are within assigned marked areas in zone X. This border X and its divided and marked areas may provide many variations, for example the squares in the border may be numbered, thus two players may choose odd or even numbers or numbers may be chosen at random by more than two players. In a further embodiment one number may be assigned to each player. If a projectile lands on an assigned number that player is eliminated.

As a further embodiment utilizing zone X and the numbered areas if a number or a plurality of numbers are assigned to each player, whenever a projectile (disc) is tossed if it rebounds to a numbered area that may be interpreted in various ways

1. the disc may be claimed by the assignee of said numbered area,

2. the disc landing on an area assigned to another player may have a penalty (the penalties to be agreed upon before the game),

3. the disc landing on a numbered area may be the means of eliminating that player from the game.

The shape of the pad may vary, that is, a square pad FIG. 1 or a triangular pad FIG. 2 or an octagonal pad FIG. 3, etc. may be used. This permits various other embodiments of the game. In FIG. 1 with a four sided pad, diagonal lines 14 may be marked upon the pad. The players (4) each choose a side and thus each own the triangular area 15 facing the player and extending outward from the pad. When each player tosses a projectile (washers) toward the pocket 11, one projectile in the pocket may be the winner of all, if no one drops a projectile in the pocket then the projectiles remaining in your triangular area are claimed. The number of projectiles to be thrown for each game may be set at the beginning, that is, one round (4), two rounds (8) three rounds (12) etc. The players may have the option of dropping out thus losing all projectiles (even in his or her triangle). Any projectile in the triangle will go to the winner or may be divided if no winner. In FIG. 3 the pad may be similarly divided into triangular areas. FIG. 2 may be divided into two lanes for two players or for two teams.

FIG. 5 illustrates a further embodiment in which a single target pocket 11 is used and a plurality of penalty pockets 16 are provided. The winner is the same as in the first embodiment, however any projectile landing in a penalty pocket must add the number of washers designated. The first winning toss (with equal turns at tossing) takes all.

FIG. 6 illustrates a still further embodiment in which the pad 10 is provided with pockets 17 of varying value. One player for each game of one or more tosses shall be the goalie and if no winner, he collects all washers, if there is a winner, he must pay off. A still further embodiment of the game according to FIG. 6 is to attach a condition to each pocket in the nature of a reward or penalty. The condition listed with the number either openly or concealed.

In a still further embodiment, the pad 10 (FIG. 1) may have a line marked across the pad instead of a pocket, thus the discs 12 are pitched toward the line. Any disc (totally) over the line will not count. The disc on or nearest to the line (from the pitched side) will be the winner. A filler plug may be inserted in the aperture 11.

This game shall not be limited to any one pad but may extend to any pad providing the desired recoil or bounce. The projectiles used may vary in size, weight and shape as long as they provide the desired bounce. The target may be a pocket in which sand or cotton or other deadening material is inserted to prevent a reactive bounce. The projectile may be thrown, tossed or propelled through the air in any fashion without limitation. The procedure of the game may vary and all variations of the game shall be governed by the disclosure.

The invention described in detail in the foregoing specification is subject to changes and modifications without departing from the principle and spirit thereof. The terminology used is for purposes of description and not limitation; the scope of the invention being defined in the claims.

What is Claimed is:

1. In a game of the character described in combination, a resilient pad adapted to be placed upon a flat horizontal surface to provide a solid support for said pad, said pad having a target area delineated on same and a plurality of small flat projectiles to be tossed at said pad with the intention of landing in said target area, said pad having instant recoil and a surface friction to resist slippage of the projectile upon the pad surface, said frictional resistance to slippage upon said pad and said pad recoil to the compressive force of said projectile when impinging being great enough to bounce said projectile back toward the line of trajectory of said projectile away from the surface of said pad.
2. In a device according to claim 1 in which said resilient material is a polyurethane and said pad is of a thickness to provide an instant recoil force for an impinging projectile equivalent to the size and weight of said projectile.

3. In a device according to claim 1 in which said pad is surrounded by a ground cloth that is divided into marked areas and in which said projectiles are circular discs of a weight sufficient to compress said pad and produce a recoil bounce.

4. In a device according to claim 3 in which said projectiles are metal washers.

5. In a device according to claim 1 in which said pad is surrounded by a groundcloth that is divided into marked areas.

6. In a device according to claim 5 in which said marked areas are numbered.

7. In a device according to claim 1 said sheetlike pad having a line marked across said pad wherein said projectiles are tossed at said pad with the intention of landing near said line.

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