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[54] **DEFORMABLE PROJECTILE AND TARGET**  
**HAVING A VARIABLE OPENING**  
 3 Claims, 5 Drawing Figs.

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**ABSTRACT:** Game apparatus for playing a target game including a target member having a variably sized target opening and projectiles of unitary construction having deformable leg members which quickly resume their original positions upon release of an applied force to flip the projectile vertically and cause it to move in a horizontal direction.

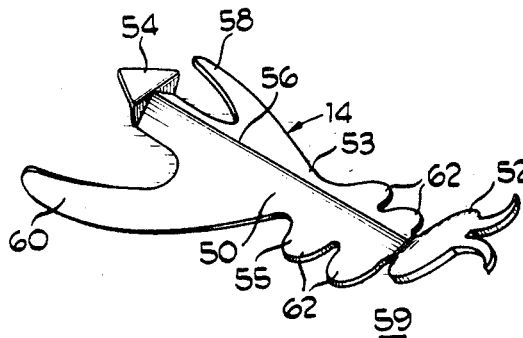
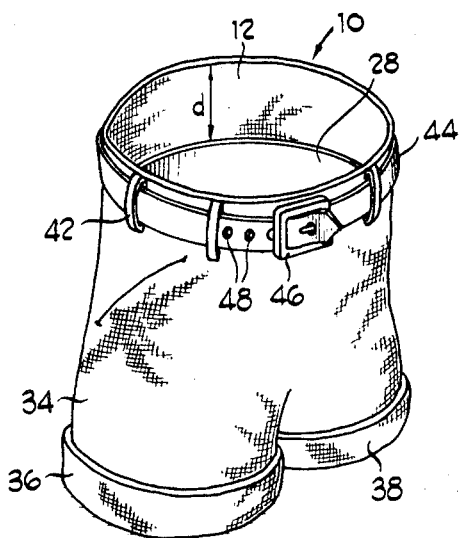


Fig 1

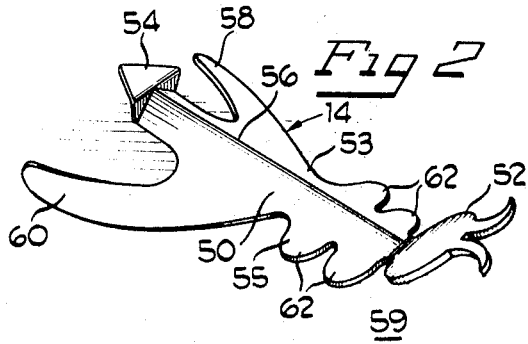
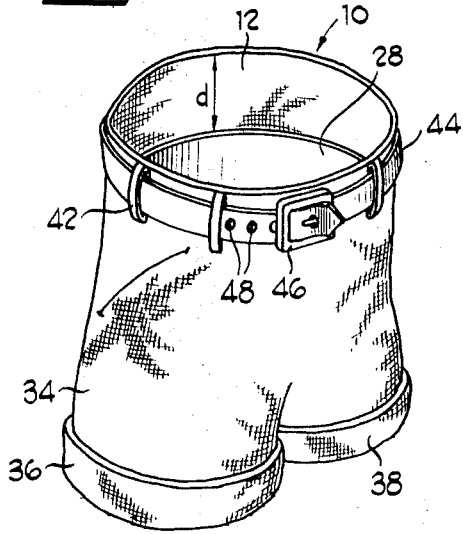


Fig 3

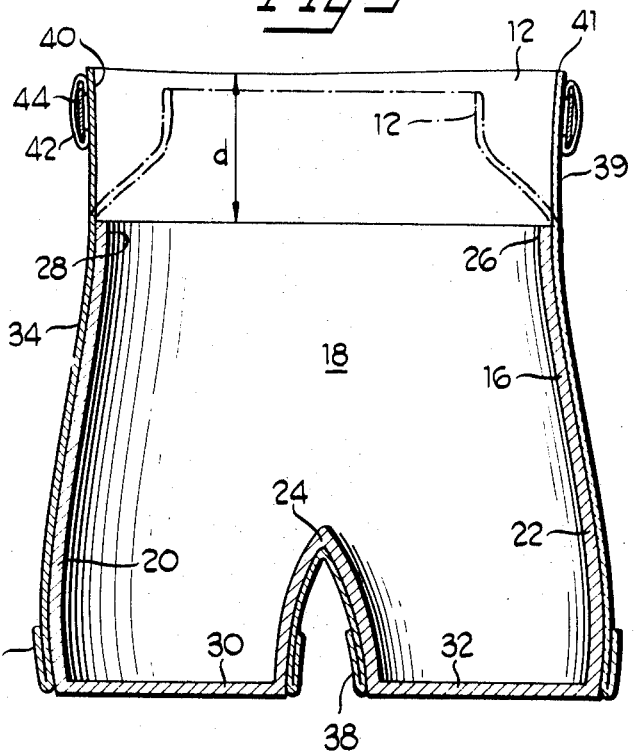


Fig 4

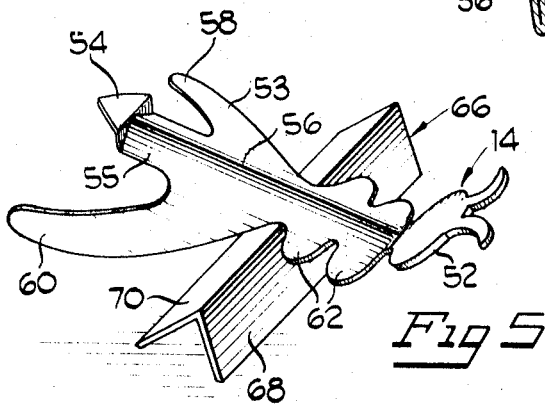
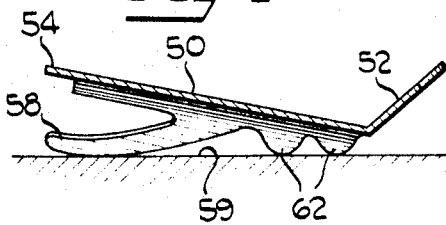


Fig 5

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## DEFORMABLE PROJECTILE AND TARGET HAVING A VARIABLE OPENING

This invention relates in general to games. In particular, this invention is directed to target games of the type wherein a projectile is launched or otherwise projected into a target member.

Games such as tiddlywinks, wherein, disk shaped projectiles are snapped or flipped into a target container by means of other disks or devices, are well known in the art. These games typically employ projectiles and separate snapping devices for launching the projectiles into the target apparatus. Also, target containers for these games typically comprise a cuplike receptacle having a fixed size target opening.

The game apparatus of the invention comprises a number of unitary projectiles which do not require separate flipping elements, and a target member having a variable size target opening through which the game players attempt to launch the projectiles. The projectiles simulate insects, such as ants, and are fabricated with resilient support legs which are adapted to be deformed responsive to applying a force to the ant body. Upon release of the applied force, the legs quickly resume their original positions and the projectile is flipped or projected vertically into the air and is also caused to move in a horizontal direction. The target member comprises a simulated pair or pants having a fabric covering defining the target opening. The fabric may be drawn together at the pants waist to vary the size of the target opening.

Accordingly, the primary object of this invention is to provide target game apparatus including a unitary, resilient projectile which may be launched toward a target opening.

Another object of this invention is to provide target game apparatus for simultaneous use by a number of game players.

It is also an object of this invention to provide a target device having an adjustable target opening, for requiring varying degrees of skill in playing a target game.

Other objects of this invention will become apparent to those versed in the art upon an understanding of the following detailed description of the game apparatus and its rules of play taken in conjunction with the accompanying drawings in which a preferred embodiment of the game apparatus is shown, and wherein:

FIG. 1 is a perspective view of a target member of the game apparatus of the invention;

FIG. 2 is a top perspective view of a projectile of the game apparatus of the invention;

FIG. 3 is an enlarged, front elevational cross-sectional view of the target member shown in FIG. 1;

FIG. 4 is a side, elevational cross-sectional view of the projectile shown in FIG. 2; and

FIG. 5 is a top perspective view of the projectile shown in FIG. 2 and an optional launching pad for use therewith.

Referring now to FIGS. 1 and 2 of the drawings, the game apparatus of the invention generally comprises a target member 10 having a target opening 12, and a number of unitary projectiles, such as the representative projectile 14, adapted for placement on a flat surface and suitable for being projected from the surface and through target opening 12.

Referring now to FIG. 3, in addition to FIG. 1, target member 10 includes a generally rigid frame 16 which may be fabricated of plastic or other suitable material. Frame 16 defines a hollow cavity 18 for receiving the projectiles, and is generally formed in the shape of a pair of short pants. The frame includes pants legs 20 and 22, a crotch portion 24, and a hip area 26 at the top of the frame which defines a circular opening 28. Bottom walls 30 and 32 are provided at the bottoms of legs 20 and 22 respectively, for closing each pants leg opening.

The exterior surface of frame 16 is covered with a stiff, but supple, cloth or fabric material 34, which includes turned up cuffs 36 and 38 around each pants leg, and adjacent the bottom walls 30 and 32. Fabric 34 extends a substantial distance D above top frame 26, and it is sufficiently stiff so that an extending portion 39 is self-supporting while the lower portion

of the fabric is carried by the frame. An upper end 41 of fabric extended portion 39 terminates approximately at the location of an individual's waist, and defines target opening 12.

A plurality of belt loops 42 are provided at upper end 41 of the fabric for receiving a belt member 44 having a buckle 46 and a number of spaced-apart buckle holes 48 by which the belt length may be adjusted. By adjusting the belt so that the buckle cooperates with different holes 48, that is, by tightening or loosening the belt, the size of target opening 12 may be decreased or increased respectively. As the belt is tightened and the size of the target opening is decreased, fabric 34 at the waist is gathered or folded so that the total length of fabric may be accommodated around a smaller circular opening. As shown in broken lines in FIG. 3, the fabric generally attains a contoured shape to provide a smaller target opening 12 when the belt has been fully tightened.

Referring now to FIGS. 2 and 4 the projectile 14 includes a central body 50, a head 52 at one end of the body, and a tail 54 at the opposite end. The body elements of the target member are shaped to generally simulate an insect such as an ant. The projectile is fabricated of resilient material, such as a resilient plastic, and may be molded or otherwise constructed in one piece to form a unitary projectile. Its unitary construction, the material of which it may be fabricated, and its simple shape, allows the projectile to be manufactured quite economically.

The projectile comprises two body halves 53 and 55 which are generally symmetrical about a center line 56 at the angular intersection of the two halves which form an imaginary backbone of the insect. The insect includes downwardly and outwardly diverging legs 58 and 60, integral with body 50. The legs extend from the body rearwardly toward tail 54 which is supported above a flat projectile supporting surface 59. The projectile also includes shoulders 62 extending outwardly from the body and located intermediate head 52 and the point along the body whereat legs 58 and 60 are secured.

As noted above, the projectile is fabricated of resilient material such as a suitable plastic. Thus, as a downward force is applied to tail 54, legs 58 and 60 are caused to spread apart or diverge along flat supporting surface 59. Movement of the legs causes distortion of the projectile and sets up internal stresses in the projectile material which are believed to be concentrated in the legs and in the adjacent section of backbone 56. Upon quick release of the force, which may be applied by an index finger of a game player, the resilient characteristic of the material causes the legs to quickly resume their original shape and positions resulting in a quick upward movement of the projectile. The projectile's inertia, due to the quick upward movement is sufficient to cause it to jump above the supporting surface. Since the force of the projectile is concentrated at its tail end 54, it will not only jump vertically but will rotate about its transverse axis and move in a forwardly direction. By properly aiming the projectile, its path of movement may be made to coincide with target opening 12.

Turning now to FIG. 5, if desired, the projectile may be launched from a launching member 66 formed of a short length of plastic or other material having two walls 68 and 70 intersecting at a right angle. The launching member may be set on the flat surface so that the intersecting walls define an upper edge upon which the projectile may be supported at a point midway between the head and tail ends. In this position, the legs of the projectile engage the supporting surface and it may be propelled as above. By elevating the midportion of the projectile on the launching member the projectiles may be oriented and aimed toward the target in a more precise manner.

During the play of the game, each player uses four projectiles 50 which are color identified to facilitate identification of those projectiles which land in the target. Each player only uses his own projectiles and he is responsible for retrieving them regardless of where they land in the game area. A player is only allowed to launch his projectiles by pushing down on the tail with a finger and subsequently releasing it.

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The players assemble about the target member, simultaneously launch their projectiles toward the target, and attempt to aim them so that they fall through opening 12. Each player scores a given number of points for every projectile successfully launched into the target member, and each game round terminates upon the first player successfully launching all four of his projectiles into the target. At this point, the score is tallied for each player responsive to the number of projectiles successfully launched into the target and the belt is tightened one notch in preparation for the next round during which the players compete as above. Two additional rounds may be played and the game player with the highest number of total points is deemed the winner.

While the game apparatus of the described embodiment utilizes a pair of pants having an adjustable waist opening and simulated insect projectiles, the apparatus may assume other embodiments such as a shoe forming a target receptacle wherein the shoe laces reduce the size of the shoe opening.

It is obvious that upon study by those skilled in the art the disclosed invention may be altered or modified in other manners without departing from its inventive concept.

What we claim:

1. Game apparatus comprising: a target member defining a target opening; said target member comprising an upstanding member with its top portion defining the target opening; and

means cooperating with said top portion for selectively varying the size of the target opening; and a resilient projectile of unitary construction adapted to be projected through the target opening by a game player; said projectile being a unitary plastic piece including a central body portion extending lengthwise of the piece and having a pair of downwardly extending spaced apart legs supporting at least a portion of the body above a support surface; said legs diverging rearwardly and outwardly from said body and adapted for distortional movement relative to the body responsive to a downward force applied to the body portion whereby internal stresses are imparted to said projectile means, said stresses being quickly relieved upon release of the applied force to thereby effect return movement of the legs and jumping movement of the projectile relative to the support surface.

2. The game apparatus as set forth in claim 1, wherein said top portion of the target member is a supple fabric material defining the target opening; and the means for varying the size of the target opening comprises an adjustable belt encircling the fabric material.

3. The game apparatus as set forth in claim 1, wherein said target member is generally shaped as a pair of pants, and said means for varying the size of the target opening comprises a belt encircling the pants at the waist.

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