Aug. 21, 1945. J. W. PATTERSON 2,383,210

GAME DEVICE

Filed June 29, 1942

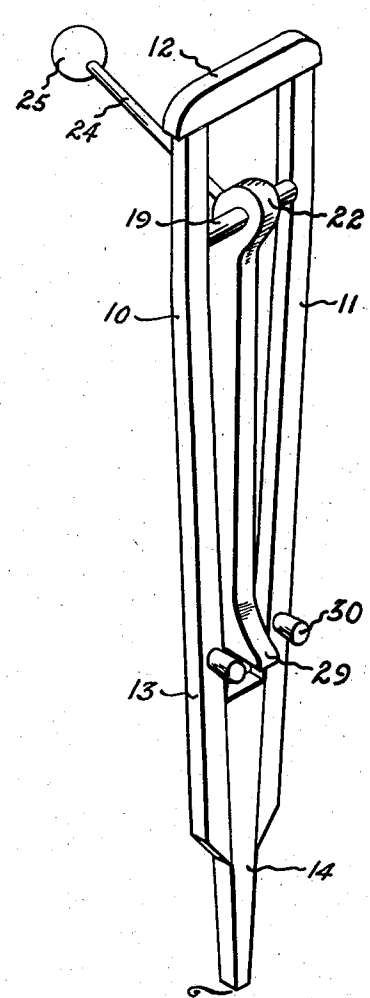


Fig. 1

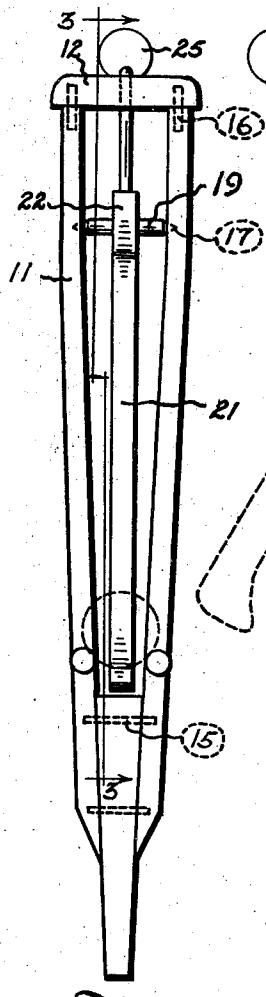


Fig. 2

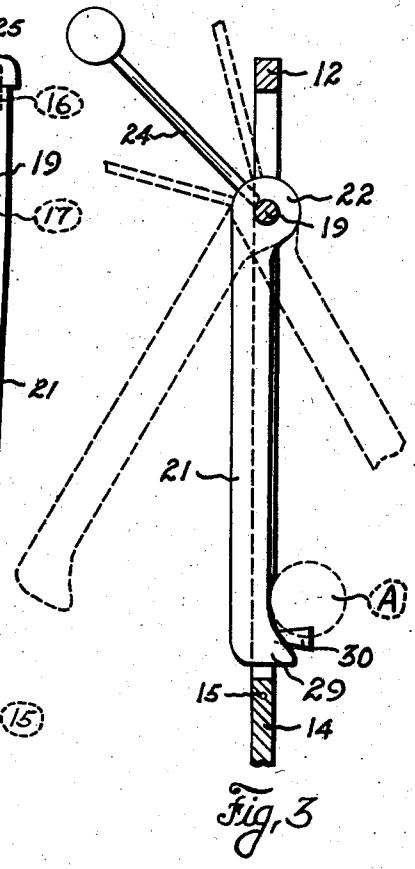


Fig. 3

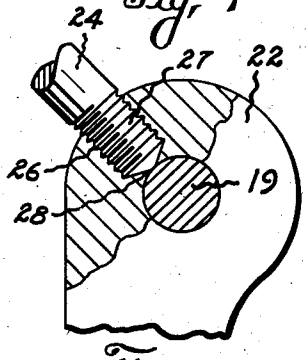


Fig. 4

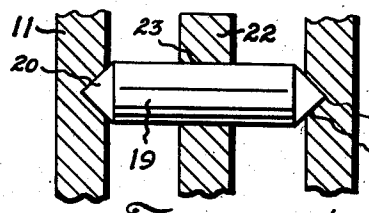


Fig. 5

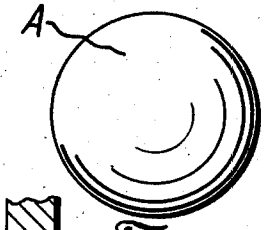


Fig. 6

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Patented Aug. 21, 1945 2,383,210

UNITED STATES PATENT OFFICE

2,383,210

GAME DEVICE

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Application June 29, 1942, Serial No. 448,945

1 Claim. (Cl. 124—1)

This invention relates to new and useful improvements in game devices.

One object of the invention is to provide an improved device adapted to be manually operated for imparting movement to a ball or spherical element and being so constructed that the trajectory of the flight of the element as well as the direction and distance thereof may be accurately controlled.

An important object of the invention is to provide an improved device which is adapted to be employed in a game of skill for projecting a spherical object and which is so constructed that the inclination of the device at the time of actuation thereof controls the trajectory of the flight of the element and to a large extent determines the distance of flight.

Another object of the invention is to provide an improved game device, of the character described, having an actuating member adapted to be moved into engagement with a spherical element so that the element will be impelled or projected, the trajectory and distance of flight of said element being controlled by the relationship between the movement of the member and the inclination of the device at the time of such movement whereby the desired flight of the element is obtained through the skill of the player in correctly combining the proper amount of movement and inclination.

A particular object of the invention is to provide an improved game device, of the character described, wherein the actuating member is pivotally-supported adjacent its upper end whereby a swinging movement of said upper end will produce an amplified movement of the lower end of said member, said lower end having a foot for engaging the spherical element so that an upward movement will be imparted to said element by the swinging of the member.

A further object of the invention is to provide an improved game device, of the character described, which has its parts fastened together by dowel pins so that it may be economically and readily constructed of wood or other suitable available material.

A construction designed to carry out the invention will be hereinafter described together with other features of the invention.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawing, wherein example of the invention is shown, and wherein:

Figure 1 is an isometric view of a game device constructed in accordance with the invention,

Figure 2 is a front elevation of the device,

Figure 3 is a transverse, vertical, sectional view, taken on the line 3—3 of Figure 2,

Figure 4 is an enlarged detailed view of the upper end of the actuating member, with a portion in section, showing the connection between said member and its lever.

Figure 5 is an enlarged transverse, vertical, sectional view, showing the pivotal support of the actuating member, and

Figure 6 is a plan view of the ball or spherical element.

In the drawing, the numeral 10 designates an inverted U-shaped frame, of wood or other suitable material, preferably consisting of a pair of upright legs 11 having their upper ends connected by a short cross bar 12 which serves as a handle. The legs 11 converge or are inclined inwardly and downwardly toward each other so that the lower portions 13 of said legs are disposed inwardly of the upper portions thereof and are closer together. As is clearly shown in Figure 2, a wedge-shaped foot member 14 for engaging the ground is interposed between and depends from the lower portions 13 of the legs 11, being fastened thereto by glue and dowel pins 15 or other suitable means. The upper ends are also fastened to the cross bar 12 by glue and suitable dowel pins 16. Although the use of glue and dowel is preferred, it is manifest that any type of fastening means may be employed. It is pointed out that the legs 11, cross bar 12 and foot member 14 could readily be made in one piece, especially when metal is used; however, the use of separate parts and fastening means makes it possible to construct the device of wood or other material which may be readily obtainable.

Axially-alined circular recesses or sockets 17, having tapered or conical walls 18, are formed in the legs 11 adjacent their upper ends for receiving the ends of a cylindrical shaft or pin 19 as shown in Figure 5. Each end 20 of the shaft is tapered or bevelled complemetary to the wall 18 of its socket 17 so as to have a snug rotatable fit therein. Since the length of the shaft 19 is slightly greater than the distance between the legs, it is obvious that said shaft is, in effect, frictionally clamped between said legs but within the sockets 17. The ends 20 of the shaft and the sockets are adapted to serve as bearings or pivot points for an elongate actuating member or arm 21 which depends from said shaft. For

suspending the arm 21 from the shaft, an enlarged annular collar or hub 22 is made integral with the upper end of said arm and is provided with an axial transverse bore 23 of a diameter substantially equal to the diameter of said shaft for receiving the same. The intermediate portion of the shaft is preferably secured within the bore 23 of the collar 22 by suitable fastening means, such as glue, dowel pins or brads (not shown). Obviously with this arrangement the actuating member or arm 21 is freely pivotable relative to the legs of the frame, whereby it may be swung back and forth between said legs.

An operating rod or lever 24, having a suitable knob 25 mounted on its outer end, is secured within a radial opening 26 formed in the collar 22. If desired, the inner end 27 of the lever 24 and the opening 26 may be screw-threaded so as to provide a more positive connection therebetween. For adjustably maintaining the arm 21 in a fixed position relative to the shaft 19 in the event said arm is not otherwise fastened thereto, the inner end 27 of the lever may be pointed or sharpened so as to engage said shaft as shown at 28 in Figure 4. This arrangement will permit movement of the arm 21 longitudinally of the shaft, when necessary or desirable, to compensate for warping of said arm or a slight imperfection in one of the other parts. With the arm secured to the shaft, it is manifest that said arm and shaft will rotate about the pivot points of the shaft as a unit upon a swinging movement of the lever 24.

The lower or free end of the arm 21 terminates immediately above the upper end of the foot member 14 and is disposed between the lower portions 13 of the legs 11, as is clearly shown in Figures 2 and 3. A foot 29 is formed on the lower extremity of the arm by enlarging the forward portion of said extremity and curving or bevelling the forward surface thereof outwardly and downwardly. As will be hereinafter more fully explained, the foot 29 is adapted to engage the ball A (Fig. 6) which is made of wood, rubber, composition or other suitable material. For supporting the ball A upon the device in the desired position, a pair of horizontally-alined pins 30 are secured to the forward surfaces of the leg portions 13 immediately above the foot member 14 by glue or other suitable fastening means. The pins 30 are of a generally frusto-conical shape and project outwardly from the leg portions 13 at a right angle with the smaller ends abutting said leg portions. It is noted that the pins are so positioned relative to the opening between the leg portions and above the foot member, whereby when the ball A is supported by said pins a downward swinging movement of the arm 21 will cause the same to strike said ball and project or impel it away from the frame. Due to the shape of the pins, the ball will be prevented from accidentally falling off of the frame under normal conditions.

In using the device, the end of the foot member 14 is rested upon the ground or other playing surface and the ball A is placed upon the pins 30 as shown in dotted lines in Figs. 1, 2 and 3. The user then places one hand upon the cross bar 12 and grasps the knob 25 with the other hand, swinging the lever 24 upwardly approximately to the position shown in dotted lines to the left of Figure 3 so that the arm 21 is swung rearwardly and upwardly to the position also shown in dotted lines in Figure 3. Upon downward movement of the knob and lever, the arm will be swung forwardly and downwardly and then upwardly so as to cause its foot 29 to strike the ball A and move it from the pins 30. Of course, the distance of the ball's flight will be determined by the speed, force and length of the swing of the arm 21, while the direction of the flight will be controlled by the accuracy of the player's aim. In order to vary the trajectory of the ball's flight, it is only necessary to incline the frame of the device rearwardly from the perpendicular because the arc or curvature of the trajectory is increased proportionately to an increase in the angle of inclination from the perpendicular. In other words, the trajectory of the ball's flight will be very flat when the device is substantially upright, but will be elevated upon rearward inclination of the device.

From the foregoing, it is readily apparent that the inclination of the device, as well as the direction of aim and force, speed and amount of swing must be taken into consideration in employing said device to impart movement to the ball A. Therefore, in order to control the movement or flight of the ball, a marked degree of proficiency and skill on the part of the player is required. Especially is this true when it is considered that the desired destination of the ball will usually be an elevated target or basket (not shown). Attention is directed to the fact that the reduced lower end of the foot member 14 aids the player's aim when the device is used upon an uneven or rough playing surface by providing a firmer or steadier footing. However, when the playing surface is very smooth and hard, such as a floor or pavement, the provision of the reduced end makes it more difficult to aim the device in the desired direction. Due to the curvature of the foot 29 of the arm 21, the trajectory of the flight of the ball will always be arcuate or curved, although substantially flat when the device is held in a perpendicular position. As has been hereinbefore pointed out, the entire device, including the frame 10, arm 21 and lever 24, as well as the pins 30, may be made in one piece of metal, wood or other suitable material. However, in view of the fact that metal and suitable machinery is sometimes not available, it is very desirable to construct the entire device of wood and to use the parts enumerated. This is also the reason for utilizing glue and/or dowel pins when any other type of fastening means would be suitable. In view of the fact that the entire device, as well as the ball, may be constructed of wood, it is manifest that the device may be readily and economically manufactured at any place where sufficient wood and skilled labor are available.

The foregoing description of the invention is explanatory thereof and various changes in the size, shape and materials, as well as in the details of the illustrated construction may be made, within the scope of the appended claim, without departing from the spirit of the invention.

What I claim and desire to secure by Letters Patent is:

A game device for imparting movement to a movable object including, a substantially yoke-shaped frame having the lower end engageable with any suitable surface for supporting the device, a handle portion at the upper end of the frame to readily permit manual holding of said device in engagement with a suitable surface at any desired angle relative thereto, said frame having a pair of spaced legs, a transverse pivot pin having its ends journaled in the spaced legs of the frame adjacent their upper ends, an elongate actuating member of less length than said

frame having its upper portion pivotally supported upon the pin so as to be freely swingable between said legs, and means connected to and forming a part of the actuating member for permitting manual swinging of said member, whereby the lower end of the member may be swung manually into engagement with the object to which it is desired to impart movement, the means for manually swinging said member extending into the same and engaging the surface of said pivot pin to assist in maintaining the member in a fixed position relative to the pin.

JOSEPH W. PATTERSON.