March 15, 1932. W. J. TURNBULL 1,849,414

AMUSEMENT DEVICE

Filed Dec. 2, 1930

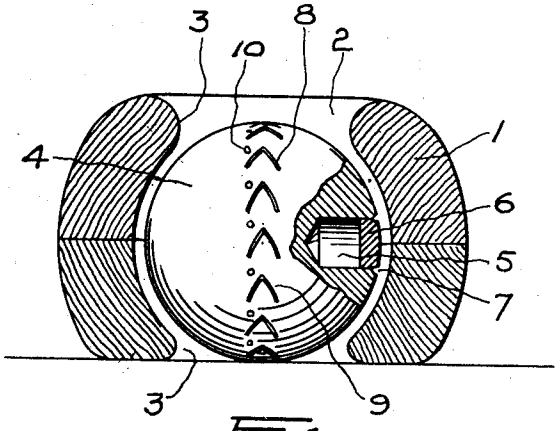


Fig. 1

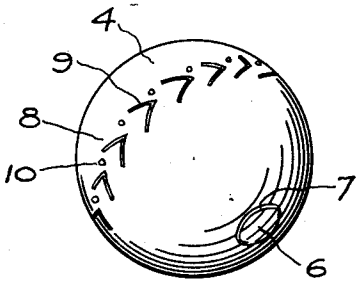


Fig. 2

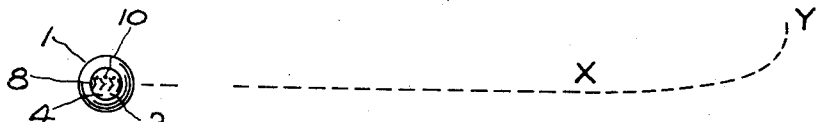


Fig. 3

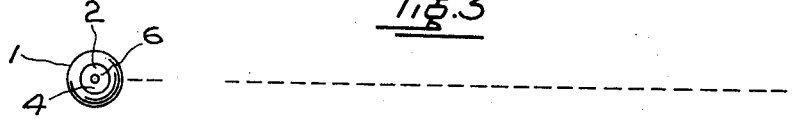


Fig. 4

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UNITED STATES PATENT OFFICE

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AMUSEMENT DEVICE

Application filed December 2, 1930. Serial No. 499,502.

My invention relates to improvements in amusement devices, the objects of which are particularly adapted to be used in games such as curling, wherein an ice rink is unavailable, or for indoor bowls and the like. Further objects are to provide a substantially circular block adapted to be projected along a floor, which is capable of developing "bias" or turning in a desired direction as it loses momentum.

The invention consists essentially of a block having a central aperture in which a freely rotatable ball is retained, which ball is heavier on one side than the other and is marked to indicate the position of the preponderance of weight therein, as will be more fully described in the following specification and shown in the accompanying drawings, in which:—

Fig. 1 is a sectional view of the invention.

Fig. 2 is a general view of the ball showing its markings.

Fig. 3 is a diagrammatic view showing the disposition of the ball to follow a biased path.

Fig. 4 is a diagrammatic view showing the disposition of the ball to follow a straight path.

In the drawings like characters of reference indicate corresponding parts in each figure.

The numeral 1 indicates generally a block of material which is preferably relatively light in weight and substantially circular in plan. The block is provided with a central aperture 2 passing vertically therethrough, which aperture is constricted at its upper and lower extremities as at 3, so as to retain therein a ball generally indicated by the numeral 4.

The ball 4 is preferably of bronze or other heavy substance and is provided with a pocket 5 on one side which is formed by drilling through the periphery of the ball and filling the outer end of the hole drilled with a tightly fitting plug 6 finished on its outer surface to conform to the contour of the ball. The plug may be of any material, though it is preferred to use a material having a different colour to that of the ball, so as to indicate the position of the disparity of weight. Where a plug is used which is of the same material as the ball to which it is fitted, the edges of the plug are slightly bevelled as at 7 so as to define a ring indicative of the position of the plug in the ball.

If a ball of light weight is used, a disparity of weight may be obtained by using a heavy metal plug on one side instead of using the construction shown.

Surrounding the ball at its greatest diameter and about the longitudinal axis of the pocket 5 is a band 8 formed by indentations or otherwise to further indicate the disparity of ball weight, this band is preferably formed of a plurality of V-shaped figures 9 having a similar number of dots 10 between and to one side of them, which dots are closer to the heavy side of the ball than the light side.

In playing the device in any game, it is thrust forward upon a plane surface so as to impart kinetic energy to the block 1 and the ball 4. The energy of the block is rapidly overcome through its dragging contact with the playing surface, that of the ball is slowly lost on account of its rolling movement and in consequence though the energy of the block is quickly lost, the block is carried along until the kinetic energy of the ball is completely dissipated.

If the ball 4 is positioned in the block 1 as shown in Figure 3, wherein the band 8 is aligned with the line of thrust, said line indicating that the heavy side of the ball is to the left of the path of travel, the device when released will travel along a straight line so long as the gyroscopic action is sufficient to maintain the axis of the ball, as taken longitudinally through the pocket 5 in a horizontal position, but as this gyroscopic action decreases and permits the heavy side of the ball to descend the ball will turn to the left dragging the block and describing a curve as from X—Y. If, however, it is desired to project the device without divergence from a straight line, the ball is adjusted until the plug 6 is aligned with the intended path of travel, such as is shown in Figure 4. When the ball is so placed in the block and the device thrust forward, the light and heavy sides of the ball will alternately form contact with the playing sur-

face and no tendency will be exerted to turn the device from the given straight line.

It will thus be seen that I have invented an amusement device having a rolling contact with a playing surface which is capable of being projected in a straight line or to curve to one side or the other of a line as desired by the player.

What I claim as my invention is:

1. An amusement device comprising a member having a top opening and being adapted to be projected along a surface and subject to retardation through dragging contact along said surface, a freely rotatable element within the member exposed to the top opening adapted to roll along said surface, and means within the element for selectively causing the device to follow a curved or a straight path subsequent to its projection along the surface.

2. An amusement device comprising a member having a top opening, a freely rotatable ball within the member exposed to the top opening, said member and ball being adapted for projection along and in contact with a surface, said ball having a weighted side and markings indicative of the position of said weighted side.

3. An amusement device comprising an annular member having a flattened base adapted to bear upon a surface, a sphere freely rotatable and retained within the member adapted to have rolling contact with the surface, said sphere having a weighted side and having annular markings indicative of the position of said weighted side.

Dated at Vancouver, B. C., this 25th day of November, 1930.

WILLIAM JAMES TURNBULL.