

March 29, 1949.

D. S. BAKER

2,465,418

PORTABLE GAME DEVICE

Filed July 14, 1944

Fig. 1.

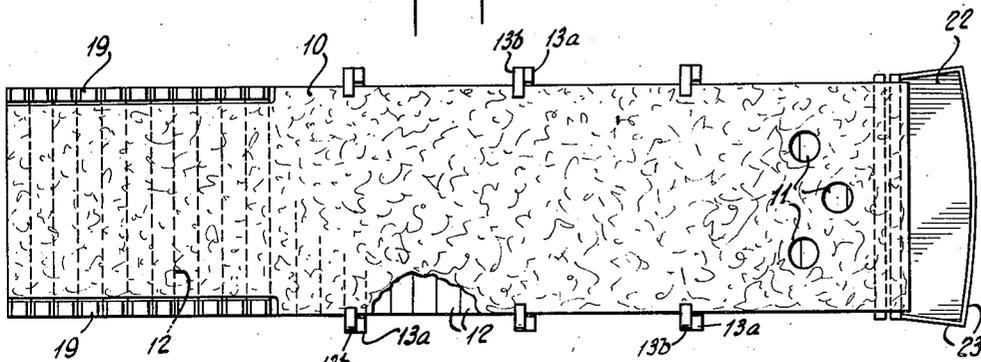


Fig. 2.

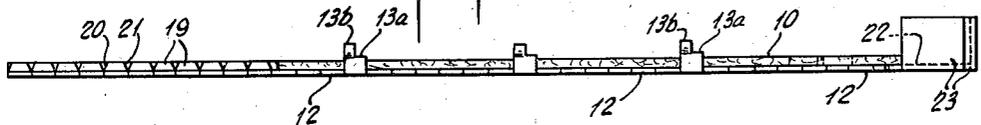


Fig. 3.

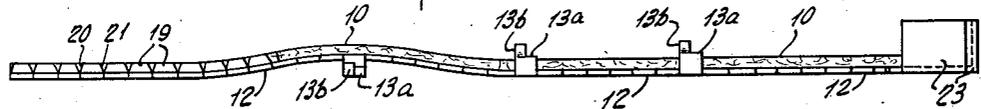


Fig. 4.

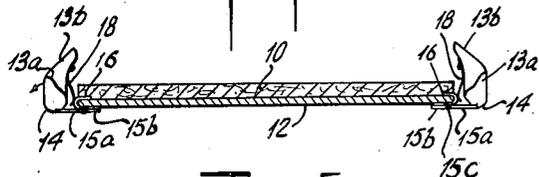


Fig. 5.

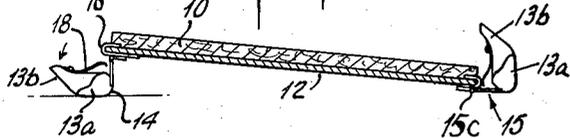


Fig. 6.

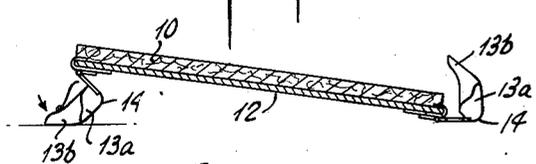


Fig. 9.

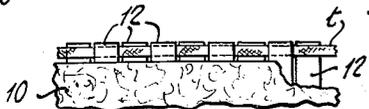


Fig. 7.

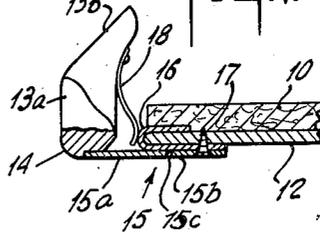
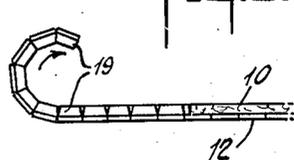


Fig. 8.



INVENTOR
DAVID S. BAKER.
BY
John D. Hoag
ATTORNEY

UNITED STATES PATENT OFFICE

2,465,418

PORTABLE GAME DEVICE

David S. Baker, New York, N. Y.

Application July 14, 1944, Serial No. 544,898

4 Claims. (Cl. 273-35)

1

This invention relates to a game device in which a ball or similar object is directed toward a target or cup-like receptacle over a surface which may be elevated locally in one or many places to provide corresponding or opposed undulations or inclined portions by means fixed to and forming an integral part of the device.

An object of the invention is to provide a game device in which a surface over which a ball or the like is to be impelled may be given a number of combinations of undulations or slopes.

Another object of the device is to provide a surface with means by which undulations or slopes of a given size and position may be exactly reproduced whenever desired thus making it possible to repeat at will the exact conditions of a previous contest.

Another object of the invention is to provide a surface over which a ball may be rolled, such that when it is elevated locally the surrounding portion of the surface will assume a smoothly curving contour without abrupt breaks in the surface.

Another object of the invention is to provide simple and effective means for elevating locally a golf practice putting surface.

Another object of the invention is to provide a surface of the kind described which may be readily rolled up into a roll of predetermined size, or unrolled into a substantially horizontal plane.

Another object of the invention is to provide such a surface with means controlling the diameter of the convolutions of the member when rolled up, so that when rolled it will always occupy substantially the same space.

Another object of the invention is to provide in conjunction with such a surface foot operable means for elevating the surface locally.

Another object of the invention is to provide a game which may be played without requiring the player to bend down to pick up the ball or to operate the surface elevating means.

Other objects of the invention will be in part obvious or in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, arrangements of parts, and in the several steps and relation and order of each of said steps to one or more of the others thereof, all as will be pointed out in the following description, and the scope of the application of which will be indicated in the following claims.

The invention will best be understood if the

2

following description is read in connection with the drawings, in which,

Figure 1 is a plan view of the device showing the playing surface unrolled and in horizontal position;

Figure 2 is a side elevation of the device shown in Figure 1;

Figure 3 is a view similar to Figure 2 showing the device elevated locally by one of the elevating means provided;

Figure 4 is a cross sectional view taken through the device shown in Figure 1;

Figure 5 is a view similar to Figure 4 showing the device elevated along one margin to one position;

Figure 6 is a view similar to Figure 5 showing the device elevated along one margin to a greater elevation;

Figure 7 is a detailed cross sectional view, on an enlarged scale;

Figure 8 is a side view of the device at the beginning of the operation of rolling it up for storage, showing the operation of the blocks 19 in controlling the diameter of the device when rolled up; and

Figure 9 is a detail view showing tapes woven between aligned abutting reinforcing cross members.

My device comprises a strip of material 10, preferably elongated as illustrated, such for example as felt, composition, or the like, over which a ball may be rolled toward a target located for example at one end of the strip 10 or beyond the end of the strip 10. The form of the target is immaterial but it may conveniently be a cup-like recess 11 cut out of the strip 10 near one end.

If desired a plurality of recesses 11 may be provided serving as alternative targets spaced at different intervals from the lateral edges of the strip 10. The position of a recess 11 relative to a lateral edge of strip 10 has a bearing on the difficulty involved in "holing" a ball or the like, rolled for example from the far end of the strip, for reasons which will be apparent from the following description of how the surface of the strip 10 may be shaped by the means to be disclosed.

The strip 10 is preferably but not necessarily reinforced, as, for example, by the rigid cross members 12 shown in the drawings, which may conveniently be of wood, or composition material such as "masonite," or the like, glued or otherwise secured to the under surface of strip 10 so that they extend transversely of strip 10. If the members 12 are used they are preferably aligned side

3

by side in abutting relation so that when a portion of the device is elevated it will form a continuous smoothly curved surface without hollows between adjacent cross members.

Instead of the rigid cross members 12 other means for stiffening and reinforcing the strip 10 may be employed such for example as strip material underlying strip 10 and secured to strip 10, or strip 10 may itself be made of a suitable stiffness to be used alone without reinforcing means.

Projecting upwardly at intervals along the lateral edges of strip 10 are pivotally mounted members adapted to swing from a substantially horizontal position to a substantially vertical position, and, in the embodiment of the invention illustrated herein they are block-like members or foot pieces 13, which are essentially flat at the bottom but preferably rounded along the bottom outer edge 14 to facilitate their movement in the manner to be described. The members 13 are each secured to the rear surface of strip 10, if the latter is used alone, or to the under surface of the reinforcing means for strip 10 if such means is employed, by means of the hinges 15. One leaf 15a of each hinge 15 extends across a portion of the bottom surface of a member 13, and the other hinge leaf, 15b, is secured to the under surface of strip 10 or to the reinforcing means underlying strip 10 if such reinforcing means is used. Each hinge member 15 is preferably disposed so that its pintle 15c is positioned inside of the lateral margin of strip 10. As illustrated herein (see particularly Figure 7), a strip 10 forming the playing surface is reinforced by cross members 12 and the members 13 respectively are hingedly connected to cross members 12. The cross members 12 to which the members 13 are attached are each provided with a U-shaped bracket 16, extending over and around the end of the cross member, and the hinge leaf 15b is secured to the cross member 12 as by screw means 17, extending through the hinge leaf 15b and the bracket 16. An oppositely curved spring leaf 18 is provided between each member 13 and the end of the aligned cross member, as between member 13b and the curved end of bracket 16, to yieldingly lock the members 13 in their initial horizontal position and to prevent them from flopping over and being in the way, as for example when the surface to which they are attached is being rolled up.

It will be seen that each member 13 together with the hinged leaf 15a to which it is secured constitutes a bell crank rotatable around the hinge pintle 15c as a pivot. When pressure is applied to a member 13, as by foot pressure, the member slides inward, on its edge 14, thus rotating the member from a vertical plane toward a horizontal plane, and simultaneously rotating the member's hinge leaf 15a from a horizontal plane toward a vertical plane, and thus elevating a portion of strip 10, and its reinforcing means if any, which is located above and adjacent the pintle 15c around which the said hinge leaf 15a pivots. Accordingly when a player wishes to modify the horizontal surface of strip 10 when none of members 13 are depressed he has only to step upon one or more members 13 to cause strip 10 to be elevated locally in the vicinity of a depressed member 13. Due to the preferred stiffness of strip 10 the elevation thus formed will be gradually curving and will slope inwardly toward the longitudinal center line of strip 10. It will be seen that a wide variety of contours of strip 10 may be obtained through variations in the selection of the members 13 which are depressed.

4

Thus for example by depressing all of the members 13 along one lateral margin of strip 10, without depressing any of the members 13 along the other lateral margin of strip 10, a continuous elevation is obtained, the top of which extends as a ridge of substantially even height, and which slopes inwardly onto a horizontally extending surface portion of strip 10. If non-adjacent members 13 on the same side are depressed to the same extent a series of inwardly inclined undulations are obtained, tapering off into a level surface. On the other hand by depressing all of the members 13 of both lateral margins of strip 10 a series of oppositely inclined slopes will be obtained, both tapering off inwardly toward the longitudinally extending center line of strip 10. By selection of members 13 to be depressed, and the extent to which a hinge leaf 15a is elevated, as will be described, the difficulty involved in impelling a ball along the length of strip 10, and "holing it" in one of the receptacles 11, may be greatly varied.

As illustrated herein each member 13 comprises portions of different height; the outer surfaces of which are angularly disposed to one another; thus the portion 13a is of less height than the portion 13b and its outer surface is initially in a vertical plane, and when the user places his foot on portion 13a the member 13 will not be rotated around its hinge pivot 15c to as great a degree as would be the case if the player stepped upon the more elevated portion 13b the outer face of which, above portion 13a, is inclined inwardly so that it does not contact the floor surface on which the device is supported until member 13 is rotated beyond the position shown in Figure 5 to the position of Figure 6. Thus the surface of strip 10 in the vicinity of each member 13 may be elevated selectively to a plurality of different heights, thus further increasing the variety of the game.

A great advantage of the device is the positiveness of the action of the members 13 in elevating portions of strip 10, and the fact that the same conditions obtaining for example at the time of one match may be repeated at any desired time. Similarly the skill of a player in dealing with a given setting of members 13 on one date may be compared with his skill in dealing with them at another date, or one player may compete under the same conditions which obtained for another player, using the device at a different date.

In order to facilitate rolling up of the device for storage or transportation I provide along a portion of one or both margins of strip 10 the aligned trapezoidal blocks 19, which in the embodiment of the invention described herein are secured respectively to the ends of the cross members 12. Preferably the trapezoidal blocks 19 are of a width at their base corresponding to the width of cross members 12 and their end faces are oppositely and inwardly inclined. As the assembly is rolled the oppositely inclined faces of adjacent trapezoidal blocks, such for example as the opposed end faces 20 and 21, will come into contact and thus, according to the inclination of said faces, will limit the angle which one block 19 may assume with relation to the next block 19. Thus the blocks will serve to determine the diameter of the roll into which the assembly may be rolled, and, by providing trapezoidal blocks 19 having uniformly inclined end faces 20 and 21, a symmetrical roll of constant diameter will be obtained. It will be understood that it is only necessary to provide the blocks 19 along a portion of the lateral margin of the device, since

5

the first convolution, when formed, will serve to determine the diameter of the succeeding convolutions of the roll. It will be seen that the trapezoidal blocks 19 serve to support the entire weight of the rolled up assembly thus relieving strip 10 of any substantial stress.

As illustrated herein the forward end of strip 10 may be secured to a member 22 which serves to anchor the front end of strip 10 and which if desired may constitute a base for the device when rolled up. Means such as a canvas cover (not shown) may also be attached to the member 22 to act with the member 22 to provide a housing for the rolled up device. The member 22 may be provided adjacent its side and rear margins with the upwardly extending side members 23 which serve both as stop means to limit the travel of the ball beyond the target and as a part of a housing for the rolled up device.

The cup-like recesses 11 are preferably of a depth so proportioned to the diameter of the ball employed that the ball when "holed" will extend above the recess sufficiently to permit it to be knocked out of the hole by an implement, such as a golf stick, thus making it unnecessary for a player to bend over to remove the ball. The limited depth of recesses 11 also adds the additional desirable hazard that a ball may enter a recess 11 but fail to remain in the recess if struck too hard. The depth of recesses 11 may be controlled by the thickness of the playing surface employed and also by providing concavities in the playing surface supporting means.

It will thus be seen that there has been provided by this invention a method, apparatus, and an article in which the various objects hereinabove set forth together with many thoroughly practical advantages are successfully achieved. As various possible embodiments might be made of the mechanical features of the above invention and as the art herein described might be varied in various parts, all without departing from the scope of the invention, it is to be understood that all matter hereinbefore set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

What I claim is:

1. A game device comprising in combination a surface over which a ball may be rolled, said surface comprising a normally flat flexible member capable of being elevated locally to form inclined sloping areas, and bell crank means hinged at one end beneath said surface and projecting beyond the edge of said surface, said

6

bell crank means being responsive to pressure on its free end to rotate around its hinge line as a pivot and to elevate said surface locally.

2. A game device comprising a member having a flexible surface over which a ball may be rolled and means for modifying the contour of said member comprising means fixed to said member and rotatable about an axis positioned beneath said member, and adapted to be interposed to a selected extent between said member and a surface on which said member is supported.

3. A game device comprising in combination a flexible surface over which a ball may be rolled, means for elevating said surface locally, said means being disposed so as to be movable from a position beyond the lateral margin of the said playing surface, and in substantially the same plane as the playing surface, into a position under the playing surface, and into a plane angularly related to the plane of said playing surface, and means interposed between said elevating means and said playing surface for normally retaining said elevating means in its said initial position beyond the lateral margin of said playing surface.

4. A golf game comprising a flexible putting surface, a member hingedly connected to said surface and movable from a plane parallel to said surface into a plane angularly related to said surface, and a foot control pedal attached to said member, said foot control pedal having a curved bottom and an outer face which has a plurality of inclined portions whereby said pedal may be readily moved over a floor and under said putting surface into either of a plurality of positions to elevate the putting surface locally and selectively into either of a plurality of positions, and means yieldingly holding said foot control member in its initial position.

DAVID S. BAKER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
538,380	McKenzie	Apr. 30, 1895
724,760	Altena	Apr. 7, 1903
827,670	Russell	July 31, 1906
1,248,842	Gaver	Dec. 4, 1917
1,582,237	Angell	Apr. 27, 1926
2,003,241	Brown	May 28, 1935
2,025,183	Stayton	Dec. 24, 1935