June 12, 1956 E. HASLETT 2,750,192

TABLE BALL GAME DEVICES

Filed Nov. 7, 1949 3 Sheets-Sheet 1

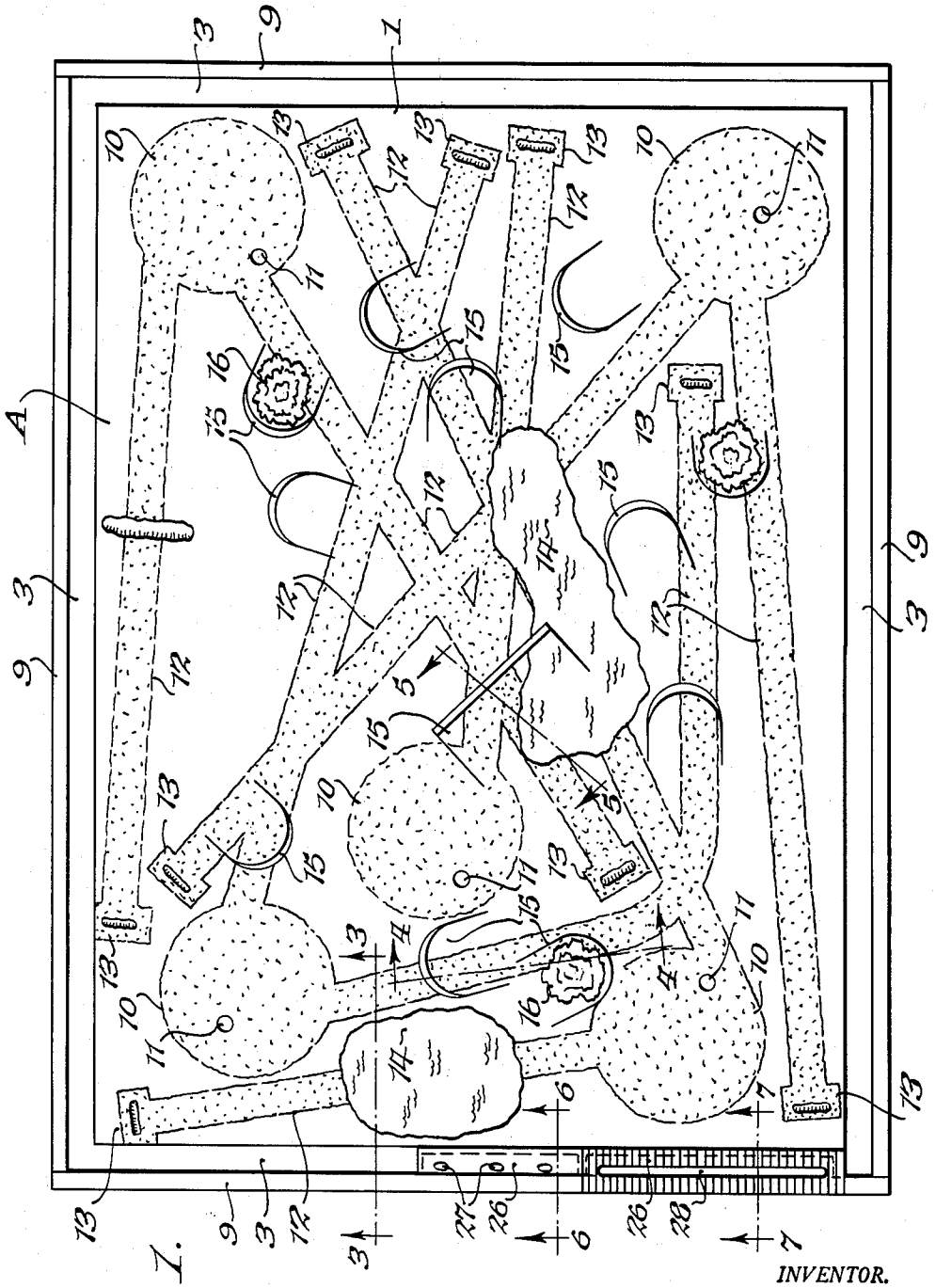


Fig. 1.

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TABLE BALL GAME DEVICES

Filed Nov. 7, 1949 3 Sheets-Sheet 2

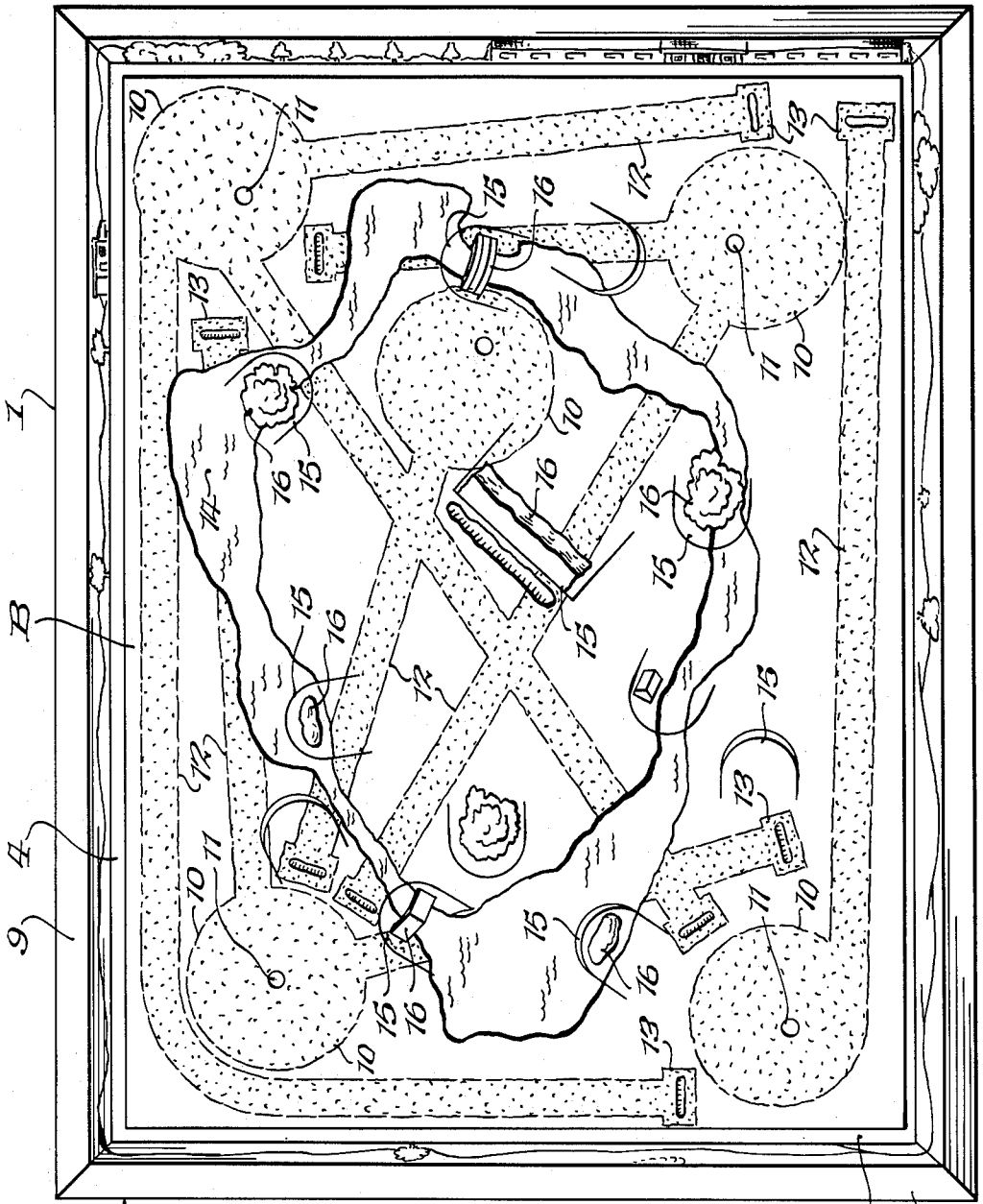
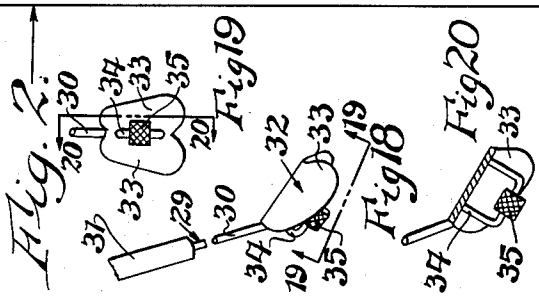


Fig. 2.

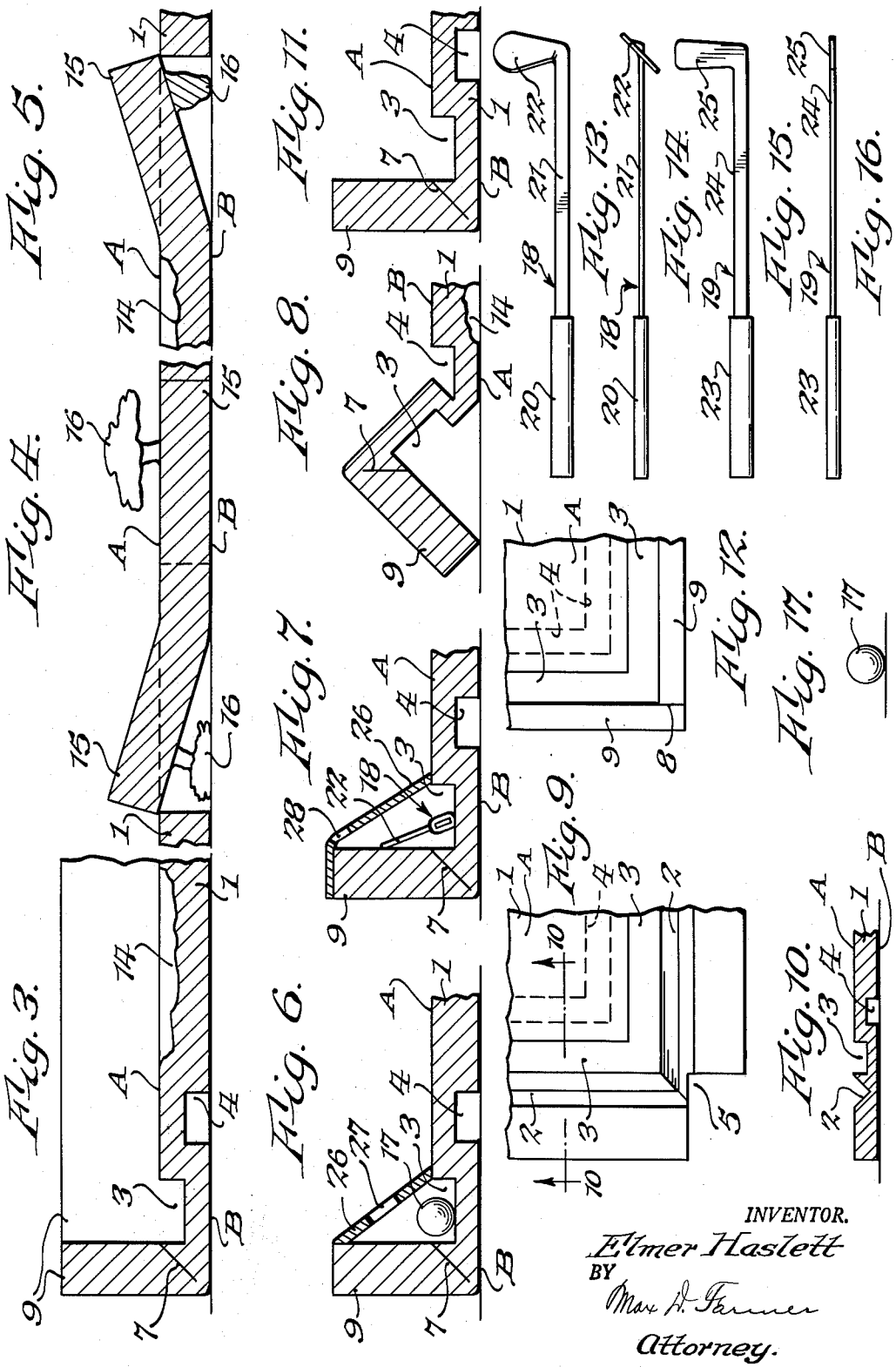


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TABLE BALL GAME DEVICES

Filed Nov. 7, 1949 3 Sheets-Sheet 3



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United States Patent Office 2,750,192 Patented June 12, 1956

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TABLE BALL GAME DEVICES

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Application November 7, 1949, Serial No. 125,868

5 Claims. (Cl. 273—87.2)

This invention relates to game devices for playing games of action indoors, such as, for example, of the type which may be placed upon a table when in use, but may be rolled, compressed or folded for storing when not in use, and particularly to a miniature golf game apparatus.

Games of action for indoor use have heretofore been practically impossible to realistically simulate, as far as the vitality of their action is concerned. Probably the nearest approach in this regard has been "ping-pong" or table tennis. There are on the market all sorts of rigid card table games made of composition board, pasteboard, plywood and the like, with various mechanical contrivances to provide the effect of outdoor sports, but about the only basic similarity is the rules and scoring. These take the forms of mechanical figures which swing a bat or swing a golf club and which are either actuated by springs, electricity, or air from a bulb and tube. The basic reason why these games do not actually simulate the real sport is that the ball, token, or other medium of play is almost wholly confined to movement within the horizontal plane and this is completely contrary to the action of the token, ball or medium in the actual sport. Thus the player loses the fun, enjoyment and thrill that should normally result from aptitude and skill, plus the fact that the end result is to a large extent a matter of luck. There are games where the rigid game board is covered with a relatively soft material, such as in the case of pool tables, which material serves to set up a friction in the horizontal movement and to lessen the noise. In all these games, however, the vertical movement, if any, is obtained from the fact that the ball, token or other medium of play is of a resilient nature and the bounce or rebound is due to the high quality of restitution in the material of the ball.

In all outdoor action games the materials selected for making the media of play have constant physical properties which are used to obtain the results desired in the game. Thus, a golf ball or baseball is designed primarily for long distance propulsion, while a football, tennis ball, or basketball is for short distance and bounce, but in each case the bounce or rebound results from a high degree of restitution inherent in the ball upon inpact with the ground. Given, then, four balls, a golf ball, baseball, tennis ball, and basketball, introduced against a plane horizontal surface, with the same angle of incidence and inertia, the rebounds, while constant in the horizontal components, neglecting friction, would vary in the vertical components, and the various angles of reflection, or rebounds, will vary. These rebounds, then, are dependent on the elastic qualities of the media, the more elastic the ball, the more vertical the angle.

An object of the invention is to bring a wide variety of action sports indoors and condensed to table or relatively limited, surface areas, and to play games of action indoors that simulate outdoor games of action, which will be substantially noiseless, as played, which will enable the players to display and develop read skill and

dexterity as distinguished from luck, and which effectively uses skill in manipulating a token or medium of play in all three dimensions in contrast to the two dimensions generally found in indoor games.

Another object of the invention is to provide an improved game device, which may be supported on a table when in use, and folded or rolled into a compact object for storage when not in use, which in use will cause the development of muscular control, accuracy, mental keenness, concentration, observation and coordination of mind and muscles.

More particularly another object of the invention is to provide an improved game device, which may be used to teach the fundamentals of the game of golf, which requires the exercise of the principles of golf, which simulates, in a miniature form, the major problems of an actual golf course, which utilizes the main rules of golf, which teaches the uses of different types of golf clubs, and which is relatively simple, entertaining, instructive, educational, and inexpensive.

Other objects and advantages will be apparent from the following description of one embodiment of the invention, and the novel features will be particularly pointed out hereinafter in connection with the appended claims.

As it is obviously desirable to increase the vertical reaction in table games of action, I have discovered that this result may be obtained by using a game board or surface of highly resilient material, such as the softer grades of sheet foam latex, placed on a rigid foundation, as a card or other table, and a token or medium of play of high density and relatively low elasticity, even to the extent of metals. There may be other explanations to this reaction, but the dampening or braking effect upon the horizontal movement is very apparent and with the increased action in the vertical dimension, the visual enjoyment of the game is increased. This action also has the great advantage of assisting in preventing the medium of play from being propelled from the game board onto the floor. The resilient material has the further advantage over most indoor action games of being completely noiseless, plus the fact that in games such as golf or football where the medium of play is sometimes propelled from the surface itself that the golf club or other implement may be depressed into the surface of the game board without disturbing the lay of the ball or token in order to accomplish the degree of loft desired.

Further advantages of this invention will be apparent to anyone skilled in the art such as the fact that the game board itself is thus more compact and practical than previous ones in that it is foldable, rollable and compressible and is adaptable for engraving or carving depressions, lakes, traps, rivers, bunkers, and the like when used as a golf course, hills and undulations and other physical properties when used as a battleground, all without distorting or affecting the resiliency of any non-carved spot on the game board on which the ball or other token may land.

In the accompanying drawing:

Fig. 1 is a plan of one face of a device embodying this invention;

Fig. 2 is a plan of the opposite face of the same;

Fig. 3 is a sectional elevation of a part of the same, the section being taken approximately along the line 3—3 of Fig. 1;

Fig. 4 is another sectional elevation of the same, the section being taken approximately along the line 4—4 of Fig. 1;

Fig. 5 is another sectional elevation of the same, the section being taken approximately along the line 5—5 of Fig. 1;

Fig. 6 is another sectional elevation of the same, the

section being taken approximately along the line 6—6 of Fig. 1;

Fig. 7 is a sectional elevation of another part of the same, the section being taken approximately along the line 7—7 of Fig. 1;

Fig. 8 is a sectional elevation of part of the same, the section being taken approximately along the line 3—3 of Fig. 1, but when the device is disposed in inverted position, as shown in Fig. 2;

Fig. 9 is a plan of a corner of a sheet of foam latex with channels formed therein, before the marginal edges are turned up to form the marginal fence;

Fig. 10 is a sectional elevation of the same, the section being taken approximately along the line 10—10 of Fig. 9;

Fig. 11 is a section similar to Fig. 10, but after the marginal edge has been bent into a position at right angles to the faces of the sheet and cemented to retain that shape;

Fig. 12 is a plan of a corner of the device after the marginal edges have been turned up and secured in upstanding positions;

Figs. 13 and 14 are front and side elevations respectively, of one type of miniature golf club that may be employed;

Figs. 15 and 16 are front and side elevations respectively, of another type of miniature golf club that may be employed;

Fig. 17 is an elevation of a small ball bearing or marble that serves as a golf ball;

Fig. 18 is a side elevation of a double-faced niblick golf club for use by both right and left handed players, as the case may be, in playing golf on the game board shown in Figs. 1 to 12;

Fig. 19 is a bottom view of the head of the club shown in Fig. 18, the view being taken approximately along the line 19—19 of Fig. 18;

Fig. 20 is a sectional elevation of the head of the club shown in Figs. 18 and 19, the section being taken approximately along the line 20—20 of Fig. 19; and

Fig. 21 is a perspective of the head and lower end of the shank of a putter club constructed in accordance with this invention and useful in playing a golf game on the game board shown in Figs. 1 to 12.

In order to explain more effectively and specifically the nature of the invention, I have illustrated and will describe its specific adaptation to the playing of miniature golf. The illustrated device includes a sheet 1 of porous, elastic latex or rubber, either natural rubber or any of the synthetic substitutes for rubber. Such porous latex is marketed under the names of "foam latex" and "sponge rubber" or "sponge latex." The foam latex has smaller pores or cells than sponge rubber or latex, and is currently made commercially in three grades, which are soft, medium and firm. In devices of this type for miniature golf, the soft type has been found most satisfactory, especially where the face area is approximately equal to that of the typical card table. Sometimes sponge or foam latex is provided with an impervious, smooth surface layer, but such a smooth surface is usually less desirable for this type of game device, since the surface with small pores or cells opening through each face retards rolling of a ball and is an advantage.

This sheet 1 of soft foam latex of rectangular shape is provided in one face thereof with a V-shaped open groove 2 (Figs. 9 and 10) parallel to and spaced inwardly from each marginal edge, and just a little further inwardly with a channel 3, preferably not as deep as groove 2. The opposite face of the sheet 1 is provided with an open channel 4 (Figs. 9 and 10) which is parallel to channel 3, but slightly further from the marginal edge of the sheet. The corners of the sheet are notched at 5, from groove 2 to the outside edge. The marginal edges are bent or turned upwardly in Fig. 3, after cement has been placed in groove 2, as shown in Fig. 11, so that the sides of groove 2 meet and are secured together face to face by cement along line 7, Fig. 11. The side margins overlap with the end margins, as shown in Fig. 12, and the faces of the side margins abutting the end faces of the end margins are cemented thereto along line 8, see Fig. 12. This converts the sheet 1 into a shallow pan with an upstanding marginal wall or fence 9 completely bordering the upper face A of the sheet 1, and just in front of this fence is the channel 3 in face A.

Game patterns are indicated upon the faces A and B, one type upon face A and a different one on face B. In this example, the pattern on each face is a miniature golf course, arranged differently on different faces. One of these courses on face A is shown in Fig. 1, and the other on face B in Fig. 2. On face A, there are marked a plurality of green circular areas 10 that represent the greens of a real golf course, spaced apart on this face, and the sheet is provided with a small aperture 11 from face to face in each "green" area 10 that functions as a cup or hole on the "green". The "green" areas on the faces A and B are opposite each other, so that each aperture 11 serves as the cup or hole of "green" areas on opposite faces. Fairways 12 extend in different directions from each "green" area 10 to "tee" areas 13, each of which has a slight groove in which to place the ball to "tee off". One or more hazards such as bunkers, traps, lakes, bridges, fences, walls and trees is provided along each fairway. These hazards vary in the different fairways, and as closely as possible correspond to hazards on typical fairways on a real golf course. The lakes 14 are shallow depressions in the faces A or B and may be colored blue to represent water. The bunkers 15 are conveniently formed by slitting the sheet from face to face along U-shaped lines so as to form tongues that may be flexed upwardly at their free ends to form an obstruction or bunker. Each of such tongues carries, on one face thereof, a projection 16 in the nature of a representation of a tree, wall, fence, bridge or other object, some of the projections 16 being provided on the faces of the tongues forming part of face A and the rest on the faces of the tongues that form part of face B. When the sheet rests on face B, then these projections 16 on face B will flex upwardly the free ends of the tongues, to which they are attached to form bunkers, as shown in Figs. 4 and 5.

When the sheet 1 is disposed on a table, with the face A resting on the table, with face B facing upwardly, the sheet will flex along the bottoms of channel 4 and the walls 9 will be oblique as shown in Figs. 2 and 8. Each wall 9 and portion of the sheet between channel 4 and wall 9 along each margin form an inverted V that itself is a wall or fence extending along the marginal edge of the face B, with the open channel 4 immediately in front of the inverted V-shaped fence. The face B has greens, fairways, traps, bunkers, lakes as on face A, but spaced and arranged differently. The tongues 15 that were lying flat when face A was upwardly, are now flexed upwardly by the tree or projection on their under faces, to form a hazard such as a bunker, the same as provided on face A in Fig. 1.

The playing tokens, which are golf balls in this example, may be small spheres 17 such as ball bearings or marbles, which are relatively heavy or of large specific gravity, one being shown in elevation in Fig. 17 and may be from about 3/16 to 1/4 inch in diameter. The golf clubs are miniature clubs, about three or four inches in length, two being shown in full size by way of illustration in Figs. 13 to 16. The club 18 shown in Figs. 13 and 14 is of the type of a niblick or mashie, and the club 19 shown in Figs. 15 and 16 is of the type known as a putter. In real golf, the clubs for distance are the driver and the mid-iron, and the clubs for accuracy are the niblick, the mashie, or one part way between them called a mashie-niblick, and the putter. There are other special clubs such as the brassie, but in a game of this small size only the niblick or mashie and putter types are necessary

or advantageous, because otherwise the ball would be shot off the table too often. Hence for this miniature game one uses the clubs of accuracy as shown. Since the trajectory of a niblick or mashie played ball is upward, and with minimum ground roll, I prefer to employ as the playing surfaces A and B, soft, resilient, cushioned surfaces such as foam latex and a small but relatively heavy ball such as of metal or ceramics. Hence marbles, ball bearings, or lead balls are very inexpensive but satisfactory as miniature golf balls.

The club **18** shown in Figs. 13 and 14 has a relatively rigid handle **20** and a ribbon-like strip **21** of resilient, flexible, springy material such as spring steel or spring brass as the shank, the free end of this strip or shank terminating in a head **22**, that is twisted or bent into an oblique position or plane that is oblique to the planes of the faces of the ribbon. Similarly the club **19** of Figs. 15 and 16 has a rigid handle **23** and a ribbon-like strip **24** of spring material forming the shank, similar to shank **21** of Figs. 13 and 14, the free end of shank **24** terminating in a flat, lateral extension or putter head **25**.

In playing this game of miniature golf, the sheet **1** as formed into a game board is placed on a table with face A upward. The golf ball (different colored balls may be used for different players) is placed at the "tee-off" station **13** of the starting place, as in real golf. The club **18** is then taken in the hand and held by the thumb and forefinger simulating the left and right hand grip, and at least one other finger rests on the foam latex surface A to simulate the stance of the legs. The head of the club so held is placed directly behind the ball at the correct angle to produce the trajectory and direction desired, slightly depressed into the foam latex surface to cause the ball to move directly against the head of the club. The club is then swung forwardly by the thumb and forefinger, using the muscles of the finger, wrist or forearm according to the force desired, and the spring action of the shank of this club, on being released from the friction caused by being depressed into the surface A, assists in sending the ball along its course. The very soft nature of the resilient course surface and the relatively heavy ball, cushions the impact of the fall of the ball, causing the ball to bounce vertically, rather than horizontally, thereby cutting the roll of the ball to the very minimum, relatively speaking.

Since on the putting green, the stroke of the club against the ball is against the side, and not toward the undersurface, as is the case with the niblick and mashie, I use the same stance as just described with a club shaped like a putter, such as the club **19** shown in Figs. 15 and 16. To avoid distance, I prefer to make the putting greens **10** larger in proportion to scale than the fairways **12**. The weight of the ball itself and the soft nature of the surfaces A and B, together with the naturally roughened or open pore surfaces A and B, set up the necessary friction, simulating turf on a natural course, by which, with coordination of the finger muscles one may obtain an effect similar to that obtained on a regular golf course, with rewards for control and accuracy, and penalties for lack of skill.

The miniature obstructions or hazards on the course, add to the requirements of control and skill for the players, and increase the similarity to an actual golf game. The walls surrounding the surfaces A and B may be decorated, if desired, with distance-accentuating scenery, by which the visual effect of distance of a real golf course is approached. In this game, the physics of a golf course are reversed, by employing a relatively heavy, hard ball instead of a resilient, light ball, and by providing a soft resilient ground surface instead of a hard one. Since there is hard and soft ground on golf courses, a similar effect is obtained on this miniature course, because whenever the lakes or depressions are formed, the resiliency of the material is decreased and the bounce of the ball is lessened, since the bounce is determined by the thickness of the material or by the fact that the bottom of a depression in the downward face may not rest directly on a rigid surface which lessens its resiliency. The presence of less resilient areas may be indicated by a difference in color.

The fence or wall around the course aids in stopping wild shots, and one may obtain **18** holes by using both faces A and B. Some of the obstructions or hazards on one face, also become obstructions or hazards on the other face. The depressions, channels, walls and obstructions may be molded on or in the faces A and B, or they may be provided on uniform flat sheets of the foam latex. The thickness of the foam latex sheet that gives the best results for table size game devices embodying this invention, is preferably about one-half inch, but this thickness may be varied depending on the effects desired. The channel in front of each wall in each face aids in stopping wild balls, and also makes it possible to have a flat playing surface, regardless of which face A or B is upward, and to have a bordering fence or wall automatically when either face A or B is upward. The height of the vertical fence determines the distance between the channels **3** and **4** to provide the fence when the sheet is reversed.

One may also simulate distance, as in a real golf course, by picturing a club house near one of the starting areas, and a place may be provided in that house for storage of the clubs and balls. This is illustrated in Figs. 1, 2, 6 and 7. For this purpose a latex wall **26** is cemented across a portion of the channel **3** from the top of wall **9** to the channel **3** to provide a chamber thereunder. This wall **26** may have apertures **27** therein slightly smaller in diameter than the balls **17**, so that the balls may be easily passed through the apertures into and out of the chamber and will be yieldingly confined in the chamber. This wall **26** may also have a slit **28** therein leading to another room of the chamber and running along the wall but longer than the clubs **18** and **19**, so that one may similarly pass the miniature clubs into and out of the chamber for storage.

In Figs. 18, 19 and 20 is illustrated a niblick type of miniature club **29** that may be employed in propelling the ball over the course. This club **29** has a shank **30** of resilient wire, with a handle **31** at one end and a head **32** at the other end. The head **32** has two wings **33** making a dihedral angle with each other, and connected at one end of the apex line to the lower end of the shank **30**. A U-shaped wire **34** is disposed in the smaller angle between the wings **33** and secured at the ends of the arms of the U to the inside of the wings along their junction at the apex line. A small rigid roller **35** is rotatably and slidably confined on the wire **34**, upon the cross arm portion of the U, so that the roller axis will be approximately parallel to the apex line at the junction of the wings **33**, and a part of the roller will depend somewhat below the wings as shown. The roller **35** can slide to some extent, endwise along the wire.

In real golf, a player is not allowed to move the ball with the face of his club until he actually strikes the ball to send it into the air. In a table game of this size, it is extremely difficult to coordinate the swing of the club with the wrist or fingers so that the face of the club contacts the ball at the correct angle to give it the desired loft. This is even difficult to do on a real golf course, because the sole of the club hits the turf if the swing of the club is too low, and cuts into the surface of the ball if the swing is too high. This difficulty is largely eliminated by the small roller **35** beneath the head of the niblick, which may rotate upon the slide along the wire **34**. Thus in a swing of such a club, the roller **35** acts as a guide and contacts the resilient surface of the course and carries or guides a face of the head of the club into proper contact with the ball. The further the rubber is compressed in the swing, the more pronounced is the angle of loft. Since this niblick has a double faced head, it may be used effectively by either right or left handed players. The double faced head also permits a normally right handed player to make some strokes with his left hand, and vice versa.

In Fig. 21 is illustrated a slightly modified putter type of miniature club **36**, that may be employed. This club has a resilient round wire shank **37** on the lower end of which is cast or molded a rigid head **38** that has the desired angular relation to the longitudinal axis of the shank **37**.

It will be observed that the improved game device basically employs a sheet of soft, cellular, highly resilient material such as resilient, cellular latex, either natural or substitute or synthetic, upon one or both playing faces of which are provided game objectives, such as reference markings, recesses, walls, obstacles, hazards or bases that are desired for or are useful in the playing of a game. The game device further employs a playing token or object that is preferably a ball and relatively rigid, so that when it rests on a playing face of the cellular sheet, it will not appreciably distort that face, but when it is dropped thereon, it will appreciably distort the playing face at the area or zone of contact and rebound therefrom. The playing face of the sheet is preferably relatively rough, instead of smooth, to retard the rolling thereon, of the token when it falls thereon at an acute angle. Such roughness of the playing face is provided on commercial foam latex, for example, which is similar to the surface created by cutting the cellular foam latex. The very small cells that are open in the playing face effectively retard the rolling of a ball tossed thereon.

It will be understood that various changes in the details, materials and arrangements of parts which have been herein described and illustrated in order to explain the nature of the invention, may be made by those skilled in the art within the principle and scope of the invention, as expressed by the appended claims.

I claim:

1. A game device comprising a sheet of soft, resilient cellular latex with both faces exposed, rough and pitted, and the cells of the sheet opening through both faces, and said sheet having a border wall of the same material rising from one face of the sheet along substantially its entire periphery, with an open upwardly facing, channel in said one face immediately in front of said wall and substantially continuous along the wall, another open channel in the opposite face of said sheet generally parallel and close to said first mentioned channel but nearer the center of the sheet and also encompassing an interior area of said opposite face, whereby when said sheet is placed on an approximately flat surface with said opposite face downward, said border wall will upstand, and when placed on said flat surface with said one face downward, the marginal portion of the sheet outwardly beyond said another channel will flex along said another channel and form a rising wall, which is an inverted V-shape in transverse cross section, that encompasses said opposite face, each of said faces having delineated thereon a game pattern corresponding to a miniature golf course, said sheet having apertures that represent the green holes of the courses on both faces, each face having elevations and depressions representing obstructions on the fairways in the portion of the courses between the holes.

2. A game device comprising a sheet of cellular latex having an integral border wall of the same material rising from the periphery of the sheet, with a gutter in the face of the sheet along and in front of the wall, the upper face of the sheet having a symbolic miniature golf course indicated thereon with recesses in said upper face of said sheet representing traps of a golf course, and elevated projections on said upper face of said sheet representing obstacles on a golf course, an elastic latex wall cemented across a portion of said gutter from the top of said border wall to the sheet along the gutter, to provide a chamber above and along a part of the gutter, said latex wall having a slit therein leading to said chamber to form a storage space that can be reached thru said slit.

3. A game device comprising a sheet of soft resilient cellular latex with both faces exposed and having an attached border wall rising from one face of the sheet along its periphery, with an open, upwardly facing channel in said one face immediately in front of said wall and substantially continuous along the wall, another open channel in the opposite face of said sheet generally parallel and close to said first mentioned channel but nearer the center of the sheet and also encompassing an interior area of said opposite face, whereby when said sheet is placed on an approximately flat surface with said opposite face downward, said border wall will upstand, and when placed on said flat surface with said one face downward, the marginal portion of the sheet outwardly beyond said another channel will flex along said another channel and form a rising wall, which is an inverted V-shape in transverse cross section, that encompasses said opposite face, each of said faces having thereon a game pattern corresponding to a miniature golf course, said sheet having apertures that represent the green holes of the courses on both faces, also elevations and depressions in both faces representing obstructions on the fairways in the portions of the courses between the holes, said sheet being slit from face to face on three sides of each of selected elevations to form tongues which lie flat with their faces coincident with faces of the sheet when the elevation is on the upper face of the tongue, and which are flexed upwardly at their free ends to form an obstruction when the elevation thereon is on the bottom face of the tongue, and a small, relatively heavy ball of the size of a small marble to serve as a golf ball to be propelled over either of said miniature courses.

4. A table ball game device comprising a sheet of cellular, resilient latex having both faces exposed to enable it to be laid on a support with either face uppermost at will, the edge portion of said sheet having an upstanding, encircling wall on one face, with a primary groove in said one face close to and extending parallel to and around the wall of the sheet, the face of said sheet opposite from said one face having an auxiliary groove extending endlessly around the margin of said sheet and disposed further inwardly from the margin of the sheet than said primary groove, each face of said sheet having a symbolic, miniature golf course delineated thereon and also projections on said course, said sheet being slit from face to face around three sides of each of said projections and forming integral, flexible tongues carrying said projections, whereby the projections on the under face at any time will engage the support on which the sheet rests and raise the tongues carrying those projections and thereby create raised obstacles on the course of the then upper face of the sheet.

5. The device as set forth in claim 4, and a relatively heavy density ball of the size of a small marble to function as a miniature golf ball.

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