

Aug. 1, 1967

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3,333,846

GAME UTILIZING ELECTRIC PROBE

Filed Feb. 4, 1965

2 Sheets-Sheet 1

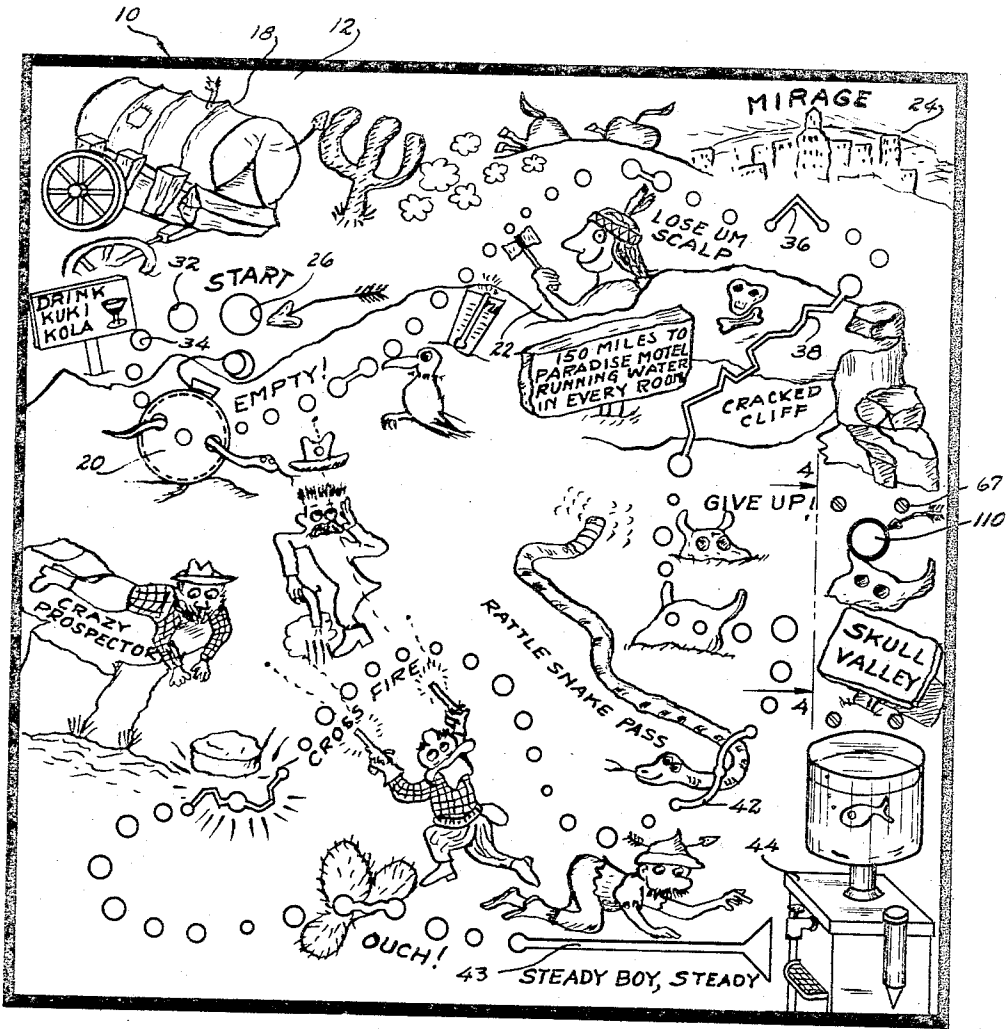


FIG. 1

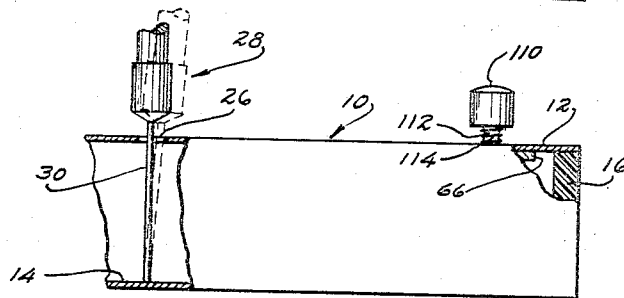


FIG. 2



FIG. 3

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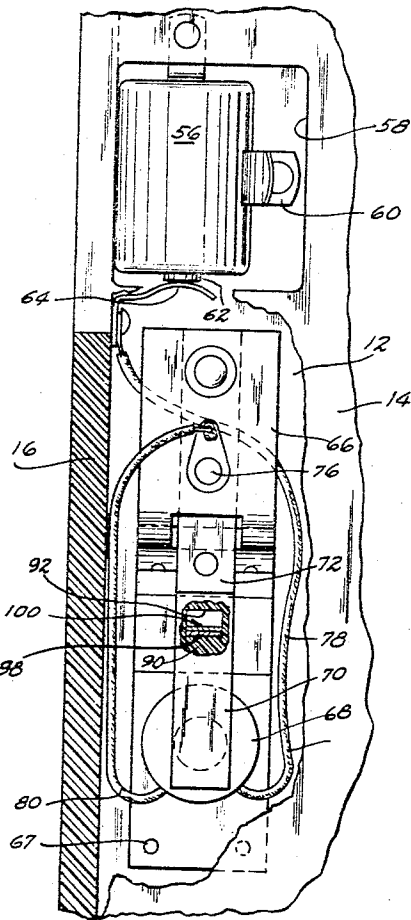


FIG. 5

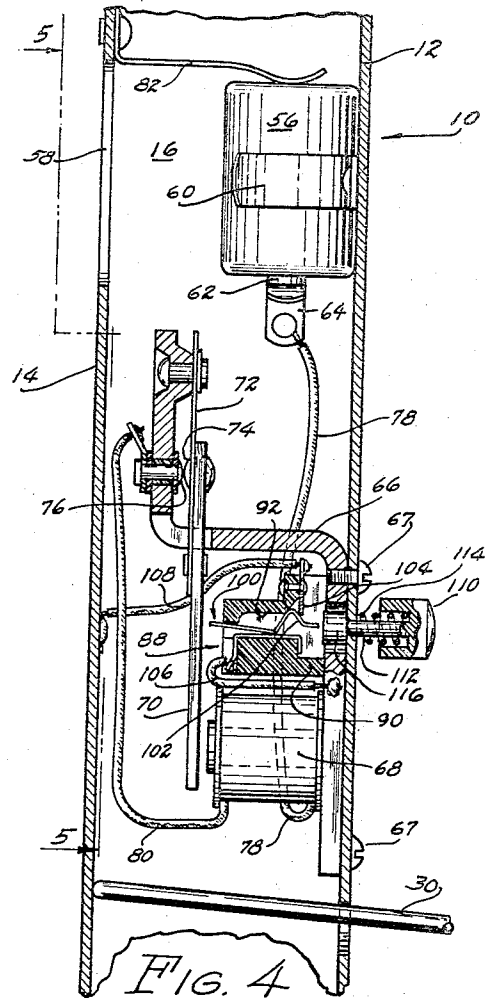


FIG. 4

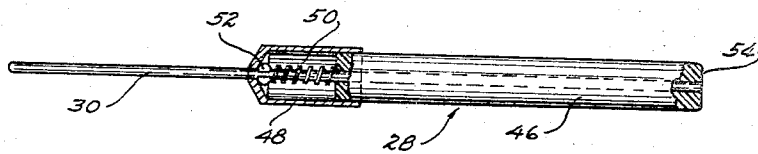


FIG. 7

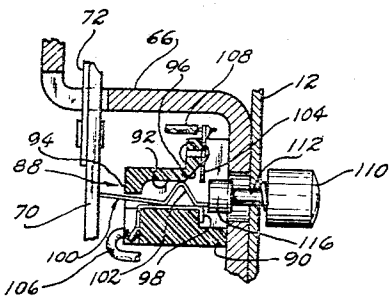


FIG. 6

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GAME UTILIZING ELECTRIC PROBE

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 Filed Feb. 4, 1965, Ser. No. 430,395
 3 Claims. (Cl. 273—1)

ABSTRACT OF THE DISCLOSURE

A board game including a pair of electrically conductive plates mounted in parallel, spaced relation with the upper plate including openings defining positions of movement for an electrically conductive rod used by the players. The rod conductive element is so mounted in its handle that a portion thereof will appear through the top of the handle upon contact of the conductive element with the bottom plate. An electrically powered signal device is connected with the plates, so that an alarm is sounded if a player contacts both plates with the rod.

This application relates generally to a game of skill, and is particularly directed to a game involving a game board and a playing piece to be inserted in sequence in suitable openings in the board but without touching the edges of the openings, the game providing indicating means which will give a signal if a player accidentally touches such edges.

It is the principal object of this invention to provide a game comprising a pair of electrically conductive plates mounted in a generally horizontal position, spaced apart and insulated from each other. The upper plate has a relatively large number of sequential openings defining a path of movement for the players on the upper plate, the openings having various sizes and shapes. The player is provided with a playing piece consisting basically of an elongated electrically conductive member, which is to be inserted in the openings in the upper plate to touch the lower plate but without making contact with the upper plate, the playing piece having means for indicating to the other players when the piece has actually touched the bottom plate. A signal device is connected with the plates and is responsive to electrical contact between the plates to give a signal so that, if a player accidentally contacts both plates with his playing piece while attempting to negotiate the path of movement, that fact will be immediately apparent. The signal device is preferably so constituted that, once the signal is started, it will continue until canceled or shut off by a definite action on the part of the player. The game also includes a plurality of markers which may be used to indicate the point at which a player may have come to grief, and where he will have to start when he has his next turn.

Other objects and advantages will be apparent from the following description with reference to the accompanying drawings, wherein:

FIGURE 1 is a plan view of the game board;

FIGURE 2 is a front elevation of a fragment of FIGURE 1 with parts broken away;

FIGURE 3 is a plan view of one of the markers;

FIGURE 4 is an enlarged view of certain mechanism within the game board, partly in section on the line 4—4 of FIGURE 1, and with parts broken away;

FIGURE 5 is a sectional view of the mechanism shown in FIGURE 4, taken substantially on the line 5—5 of FIGURE 4 with the parts in a different position;

FIGURE 6 is a fragment of FIGURE 4, with the parts in a different position; and

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FIGURE 7 is a plan view partly in axial section, of one of the playing pieces.

In a game directed especially to the enjoyment of children it is believed desirable to accompany the game with a novel representation, preferably somewhat humorous in character, and in the present instance, the path of movement of the playing pieces defined by the openings in the playing board depicts the wanderings of an individual in the desert, who finds his canteen has been drained by a bullet hole. As the hazards of the imaginary trek become greater, the openings for the playing piece become smaller or more tortuous, so that it takes more skill to keep moving toward the end of the trip than it does at the beginning. The water cooler is the reward for the player who first completes the entire trip.

As seen particularly in FIGURES 1 and 2, the game includes a board 10 composed of an electrically conducting upper sheet or plate 12, spaced from a lower electrically conducting sheet or plate 14, the sheets being spaced apart by an outer rim of insulating material 16 to form a substantially square shallow box-like structure. Sheet 12 carries pictorial representations of various objects which suggest adventures which could be experienced by a wanderer, such as the wrecked wagon 18, the empty canteen 20, the Indian 22 and the mirage 24.

The play is started in an opening 26 near the wagon 18, the player having a playing piece 28 (FIGURE 7) with an elongated portion or rod 30 of electrically conductive material, which is to be inserted in opening 26 without touching the margins thereof, but deeply enough to touch lower plate 14. If the player is skillful enough to touch plate 14 without touching the edges of opening 26, he may withdraw his game piece and insert it in the next hole 32. If he is successful there he may proceed to hole 34, and so on. When, in any hole, however, he is unfortunate enough to contact both bottom plate 14 and the edge of the hole at the same time, he will complete an electrical circuit including 12 and 14, which will set off a signal, as will be described presently.

Succeeding holes are usually smaller than those near the starting point, and the size may vary from one location to another, the most difficult openings to negotiate being preferably in the vicinity of the most formidable hazards. Thus the holes are smaller in the vicinity of the Indian 22. Again in the region of the mirage 24 a V-shaped slot 36 takes the place of one of the holes, and must be passed by inserting the playing piece and sliding it along the slot, but without touching the margins of the slot. Also in the vicinity of "Cracked Cliff" a long and jagged slot 38 must be traveled successfully. No player is likely to be skillful enough to travel the whole course without setting off the signal, so the players are each provided with an animal skull 40 (FIGURE 3) which is to be placed on the board at the point where contact was made, and where the player must resume travel after the other players have each had a turn. A sinuous slot 42 is provided at "Rattlesnake Pass," and small holes are found in the crossfire between two characters engaged in a gun battle. Another jagged slot is found beneath the "Crazy Prospector" who is in the act of dropping a rock on a passer-by. Other variations will doubtless suggest themselves to those skilled in the art. At the end of the trail is a long straight slot 43 which may be deceptively difficult, because it looks so easy. The first player to get to the water cooler 44 wins the game.

FIGURE 7 shows one of the playing pieces 28, this unit comprising a handle portion 46 in which above mentioned rod 30 is freely slidable. A ferrule 48 is fixed on one end of handle portion 46, providing an internal space for a spring 50 compressed between the end of handle 46 and an enlarged portion 52 on rod 30 within ferrule

48. In this manner rod 30 is continuously forced toward the left in FIGURE 7, or generally downwardly, in the usual position of the playing piece when in use. Rod 30 preferably extends entirely through handle 46 to be substantially flush with the opposite end 54 of handle 46, so that when a player presses rod 30 downwardly against lower plate 14, rod 30 will be forced axially against the urging of spring 50 so as to project beyond the end 54 of handle 46. It will then be obvious to the other players that the player has forced rod 30 into positive contact with lower plate 14, and is not cheating by failing to make contact with plate 14.

The signal mechanism is best shown in FIGURES 4, 5 and 6. It may be located anywhere between plates 14 and 16 provided only that it is out of the region beneath any of the holes 26 to 43, inclusive, in the present instance being in the region beneath "Skull Valley," adjacent the right hand side of board 10 and upwardly of the water cooler 44. A battery 56 is inserted upwardly through an opening 58 in bottom plate 14, and is held in position against wall 16 by a spring clip 60. Battery 56 has a positive terminal 62 engaged by a spring clip 64 in electrical contact therewith and supported from insulating wall 16. A buzzer frame 66 is fixed in any suitable manner on the under side of upper plate 12, as by screws 67, so as to be in electrical contact therewith and carries an electro-magnet 68 in position to attract an armature 70 carried on a leaf spring 72 fixed in any suitable manner on a portion of frame 66. Armature 70 has a contact 74 engaged with a contact 76 on, but suitably insulated from frame 66. One terminal of magnet 68 is connected by a lead 78 with spring clip 64. The other is connected by a lead 80 with contact 76. Armature 70 is electrically connected with frame 66 and accordingly with top plate 12. A spring clip 82 is supported in electrical connection with lower plate 14 and in contact with the negative terminal of battery 56, so that when the circuit is completed between plates 12 and 14 by contact of rod 30, a current will flow from battery 56 through lead 78, magnet 68, lead 80, contacts 76 and 74, leaf spring 72, frame 66, upper plate 12 and rod 30, to lower plate 14. The current continues to flow between lower plate 14 and battery 56 through spring clip 82. The attraction of magnet 70 will open contacts 74 and 76, so that armature 70 will be released, again making the contact whereupon armature 70 will be again attracted, again opening the contacts, and so on in the manner well-known in the ordinary buzzer. Contact of rod 30 is likely to be only momentary, and it is desirable that the buzzer shall continue to operate after the slightest contact, even though the contact is promptly broken. For this purpose a trip switch 88 is used, which is actuated by the first motion of armature 70.

Switch 88 comprises a block of insulating material 90 fixed to frame 66 between it and armature 70. It has a bore 92 directed toward armature 70, having a lip 94 and a diagonal or offset surface 96. Bore 92 is preferably angular in cross section, and the lower side, as seen in FIGURES 4, 5 and 6, has a strip 98 thereon, of electrically conductive material, which is bent at its ends to prevent longitudinal displacement in block 90, and pressed in place by a spring strip 100. Strip 100 has an offset portion 102, and is so shaped that it presses firmly against a portion of bore 92 immediately adjacent diagonal surface 96 against strip 98 and against lip 94. In this condition it will be held against longitudinal movement by friction, but can be readily moved with little force. Strip 100 rests normally in or substantially in contact with armature 70 so as to be shifted by movement thereof.

Upon the first movement of armature 70 when energized as hereinbefore described, strip 100 will be moved to the right in FIGURE 6 so that offset portion 102 will slip off of the surface 92 onto diagonal surface 96, and by virtue of its resiliency, will wedge between it and a

strip 104 forming a pocket with surface 96 for the reception of portion 102. Strip 98, and therefore spring strip 100, is connected by a lead 106 with top plate 12, while strip 104 is connected by a lead 108 with bottom plate 14. Therefore, once strip 100 has been shifted as described, the buzzer will continue to sound, even though rod 30 is promptly removed from contact with upper plate 12, so that it is apparent that a contact has been made however brief.

The signal is stopped by a push button or re-set 110 fixed on a stem 112 extending into game board 10 and pressed outwardly by a spring 114. Stem 112 has a head 116 aligned with the end of strip 100 opposite armature 70, so that pressure on re-set 110 will shift strip 100 toward the left as seen in the figures, dislodging portion 102 from the pocket formed by strip 104 and diagonal surface 96, and restoring it to its normal position as shown in FIGURE 6. The electrical circuit is then broken and the signal is silent until the next contact between plates 12 and 14.

Although variations are contemplated in the mode of playing the game, basically each player in turn takes one of the playing pieces 28, and starts inserting it in hole 26. If he is successful in touching the bottom plate, as indicated by protrusion of rod 30 beyond the end 54 of handle 46, he may withdraw rod 30 and insert it in hole 32. Again if he is successful in avoiding contact, he may insert rod 30 in hole 34. Wherever contact is made, the signal will sound, and that player must relinquish his turn. He then places a marker 40 at the point where he made contact, and waits until the other players have each had a turn, whereupon he has another turn, removes his marker, and inserts his playing piece in the next hole.

Each player will ordinarily advance to some extent with each turn, and eventually one of them will arrive at slot 43 to win the game.

Variations in the described structure and in the rules of play will also doubtless occur to those skilled in the art to make the game more or less difficult for adults, children, or very young children, as the case may be. For example, the size of rod 30 relative to the size of the openings in plate 12 may be varied to make the play easier or more difficult as desired.

It will be seen that there is provided herein a novel game of skill which is effective to stimulate competition throughout the game through the use of progress indicating markers, and through the use of novel and amusing situations depicted on the game board. Although shown and described with respect to a particular embodiment, it will be understood that modifications might be made without departing from the principles of this invention.

What is claimed is:

1. A game comprising a game board including a pair of electrically conductive plates mounted in parallel, spaced-apart relation, means defining a path of movement for the player on the upper one of said plates and including sequentially arranged openings through said upper plate, an indicating means carried by said board and including an electrically powered signal device, a playing piece in the form of an elongated member having a relatively movable, axially disposed rod of electrically conductive material, a spring disposed in said member to urge said rod outwardly of said member at one end thereof, said member and rod being constructed so that pressure on the projecting end of said rod will cause the rod to be retracted within said member at said one end and projected from said member at the other end, said plates and signal device being arranged in an electrical circuit so that contact of said rod with both plates will actuate said signal device.

2. A game comprising a game board including a pair of electrically conductive plates mounted in parallel, spaced-apart relation, means defining a path of move-

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ment for the player on the upper one of said plates and including sequentially arranged openings through said upper plate, said openings having various size areas and shapes, an indicating means carried by said board and including an electrically powered signal device, a playing piece in the form of an elongated member having a relatively movable, axially disposed rod of electrically conductive material, a spring disposed in said member to urge said rod outwardly of said member at one end thereof, said member and rod being constructed so that pressure on the projecting end of said rod will cause the rod to be retracted within said member at said one end and projected from said member at the other end, said plates and signal device being arranged in an electrical circuit so that contact of said rod with both plates will close the circuit and actuate said signal device, for continuous operation, and means on said board for manually breaking the electrical circuit to deactivate the signal device.

3. A game comprising a game board including a pair of electrically conductive plates mounted in parallel, spaced-apart and insulated relation, means defining a path of movement for the player on the upper one of said plates and including sequentially arranged openings through said upper plate, said openings having various size areas and shapes, an indicating means carried by

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said board and including an electrically powered buzzer including an electro-magnet and an armature, a battery, an electrical circuit including said battery, buzzer and conductive plates, a playing piece in the form of an elongated member having a relatively movable, axially disposed rod of electrically conductive material, a spring disposed in said member to urge said rod outwardly of said member at one end thereof, said member and rod being constructed so that pressure on the projecting end of said rod will cause the rod to be retracted within said member at said one end and projected from said member at the other end, and switch means in said electrical circuit which is operative so that contact of said rod with both plates will actuate said buzzer.

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