C. H. WILLISON.

PUZZLE.

APPLICATION FILED JULY 30, 1920.

1,364,668. Patented Jan. 4, 1921.

Fig. 1

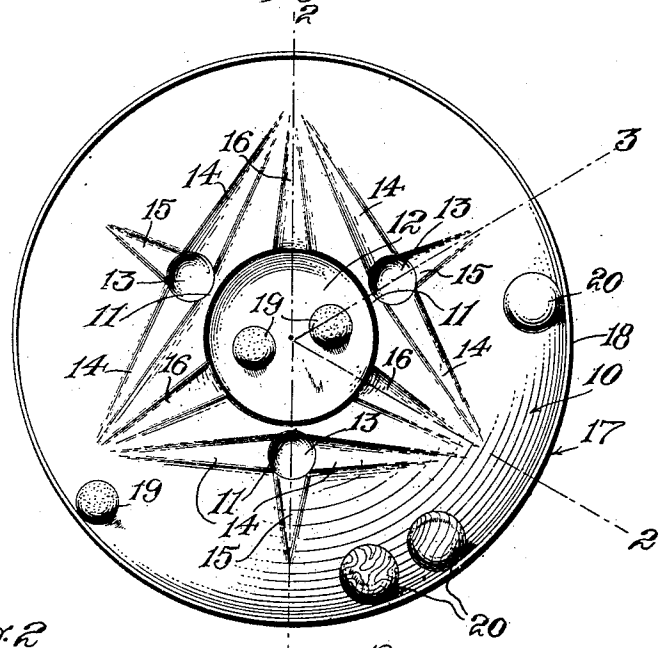


Fig. 2

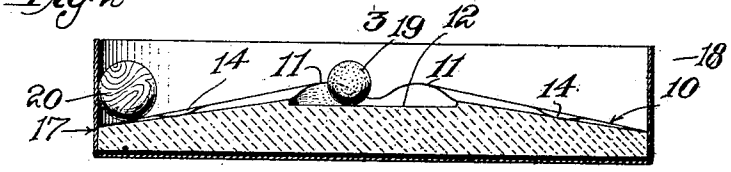
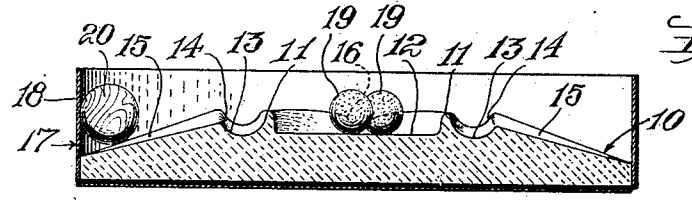


Fig. 3



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PUZZLE.

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To all whom it may concern:

Be it known that I, CHARLES H. WILLISON, a citizen of the United States of America, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Puzzles, of which the following is a specification.

My present invention relates generally to puzzles, my object being the provision of a simple inexpensive puzzle which may be readily manufactured from a variety of materials and stamped, molded or otherwise shaped, as well as one which will be amusing and at the same time present sufficient difficulty in the solution thereof to maintain interest, with the ultimate result or solution in front of the eyes at all times.

A further object is the provision of a puzzle which may be rendered typical of war-like operations or in fact various other activities as may be desired.

With these objects in mind my invention resides in the puzzle shown in the accompanying drawings and to be now described with respect to these drawings.

In the drawings,

Figure 1 is a top plan view,

Fig. 2 is a cross section taken on line 2—2 of Fig. 1, and

Fig. 3 is a cross section taken on line 3—3 of Fig. 1.

Referring now to these figures my improved puzzle is of that general type including a field and a series of rolling and preferably spherical pieces which are movable on the field, the solution of the puzzle embodying the shifting of the field to cause specified positioning of the moving pieces without touching the latter with the fingers.

According to my invention, the field 10 is in the nature of a circular plate stamped, molded or otherwise formed of the centrally peaked shape as shown. In arriving at this form the plate is gradually thickened from its peripheral edge to its center and closely approaches in shape a truncated pyramid in view of the grouping of three separate peaks 11 as equi-distantly spaced points around a central depression or crater 12. Each peak has a depression 13 and with the depression of each peak communicate the inner ends of grooved paths 14 extending upon diametrically opposite sides thereof parallel to a tangent of the circular crater. These grooved paths it will be noted are of less depth than the depths of the crater depressions and extend at right angles to other grooved paths 15 leading to the depressions and extending radially with respect to the center of the complete field.

The central crater is placed in communication with the outer portion of the field by means of grooved paths 16 leading radially therefrom between the paths 14 before described.

The playing field is preferably formed as above stated upon a plate whose irregularly or inundated upper surface constituting the playing field is formed by molding or stamping the plate to the shape shown. This plate is adapted for disposal within the circular body 17 of a box-like frame whose upstanding surrounding flange 18 thus limits movement of the pieces on the field of the puzzle and prevents their accidental displacement, in addition to its adaptability for reception of any form of flanged cover not shown, whereby the field and its movable pieces are protected when the puzzle is not in use.

On the field are disposed a plurality of freely movable rolling pieces, preferably spherical, such as marbles and the like, including two groups of three pieces each, the groups being distinguished either by size, color, names or all of these features so that group 19 intended for ultimate positioning within the central crater may be readily distinguished from the other group 20 intended for ultimate positioning within the crater depressions in the solution of the puzzle.

In the solution of the puzzle the operator tilts or agitates the entire playing field with the object in view of moving the several pieces of the group 19 into the crater along the grooved paths leading to the crater and similarly shifting the pieces of the group 20 into the depressions of the craters along the grooved paths leading to these depressions. The solution or objective is thus in front of the eyes at all times and the puzzle is made sufficiently difficult to form a continuous source of amusement even though its solution is very apparently capable of accomplishment.

The puzzle as proposed by my invention may thus, by proper naming and entitling of the different portions of the playing field and the movable pieces be given a war-like signification in view of the ultimate location of the pieces 20 in the depressions of

the craters surrounding and overlooking the unprotected pieces 19 in the crater, although it is to be understood that the invention is not limited to this war-like signification and the invention is complete without embellishment along this line.

I claim:

1. A puzzle consisting of a field gradually rising toward the center and provided with a centrally located crater and separately elevated peaks disposed around the crater and each provided with a depression, the said playing field having a series of grooved paths leading to the individual peak depressions and the central crater having a flat outer portion around the outer ends of the grooves, and a series of movable pieces for movement along the said grooved paths into the crater and the depressions of the peaks as described.

2. A puzzle including a plate having a surrounding rim and an elevated central portion provided with a central crater and recessed peaks disposed at spaced points around the crater, said plate having grooved paths radiating from each of its recesses and grooved paths radiating from the crater between certain of the paths of the recesses, and rolling pieces movable on the plate within the rim and into and out of the said crater and the said recesses along the said grooved paths as described.

In testimony whereof I have affixed my signature.

CHARLES H. WILLISON.