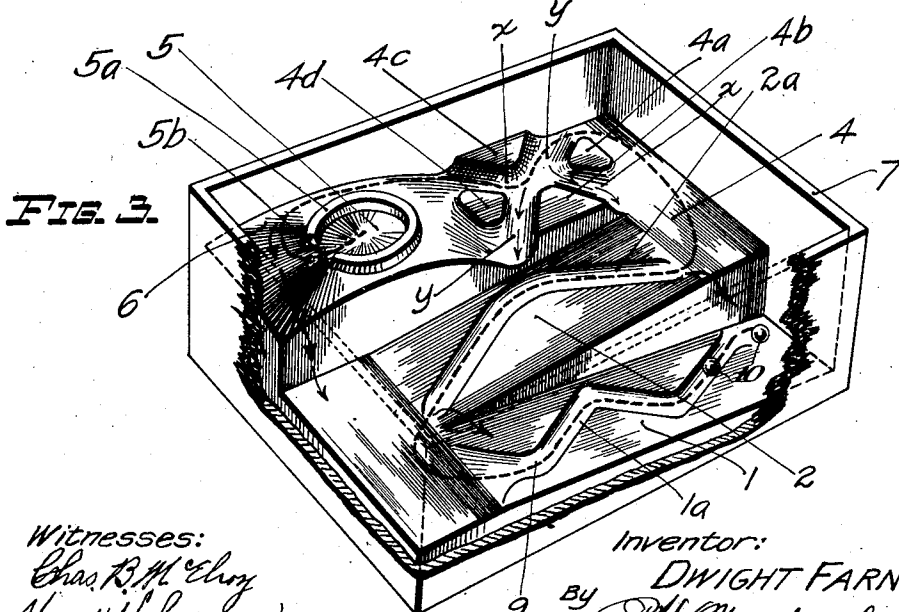
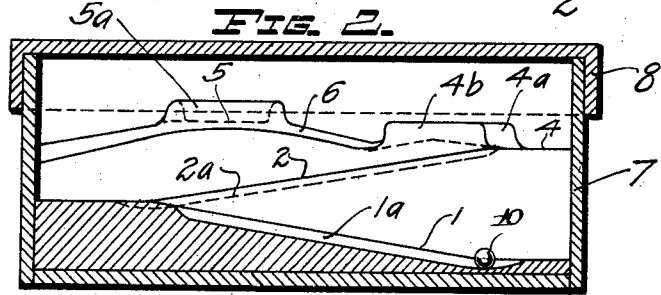
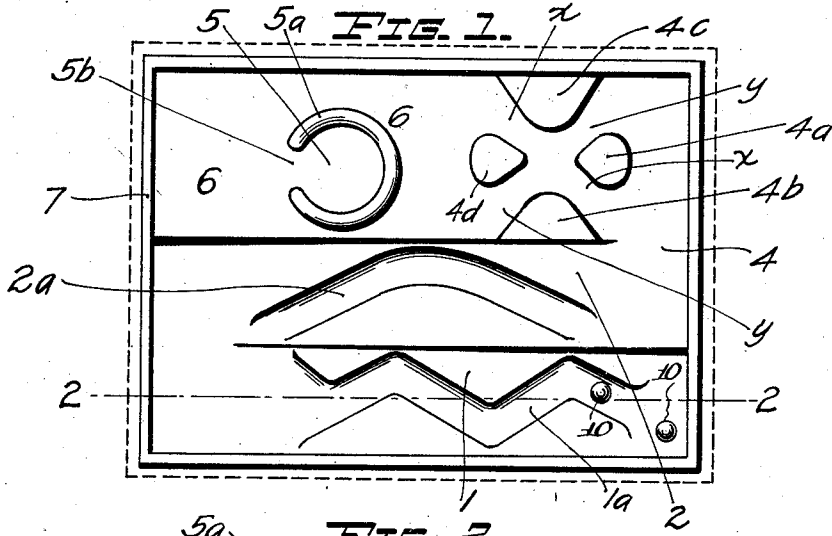


D. FARNUM.
PUZZLE.

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1,061,903.

Patented May 13, 1913.



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UNITED STATES PATENT OFFICE.

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PUZZLE.

1,061,903.

Specification of Letters Patent.

Patented May 13, 1913.

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To all whom it may concern:

Be it known that I, DWIGHT FARNUM, a citizen of the United States, residing in the city and county of Denver and the State of Colorado, have invented a novel Puzzle, of which the following, together with the accompanying drawings, constitute a full, clear, and exact specification.

This invention relates to puzzles, and its object is to provide a puzzle of novel construction which shall furnish a popular and interesting item of amusement and entertainment, besides furnishing a test for skill and patience.

The construction of this puzzle is based upon, and its arrangement is designed to typify, the well known nursery rhyme of "Jack and Jill."

Referring to the drawings, Figure 1 is a plan view of the puzzle; Fig. 2, is a section on line 2—2, Fig. 1, and shows a part of the puzzle in elevation, while Fig. 3, is a perspective view, with a part of the containing box broken away.

In the preferred construction of this puzzle, (1) and (2) are successive inclines, arranged, one adjacent to and above the other, and having cut in their respective surfaces, the zig-zag groove (1^a), and the curved groove (2^a). The surface of incline (2) merges unbrokenly into the surface (4), and at (4^a), (4^b), (4^c), and (4^d) are small knobs, forming obstructions, while between (4^a) and (4^b), between (4^a) and (4^c), between (4^c) and (4^d), and between (4^b) and (4^d), are grooves (x) and (y) having their bottom surfaces sloping toward (2). At (5), situated on the crest of a small hill or mound (6), is a circular inclosure formed by the raised ring (5^a), and having an open space at (5^b). The bottom of (5) may be slightly concave, if desired. Generally, two steel balls 10 or marbles of suitable size are provided, though a greater number than two may be used if desired. The problem consists in placing the balls at the foot of the incline (1), and by properly tilting and manipulating the containing box (7), to cause the balls, principally by force of gravity, to traverse the grooves (1^a) and (2^a), to pass over the corresponding inclines, to pass through portions of the grooves (x) and (y), and to be rolled over the hill (6), and around through the open space (5^b) into the inclosed space (5). The difficulty

of this feat is enhanced by the tendency of the balls to roll down through the grooves (x) and (y), as indicated by the arrows, and down the inclines (2) and (1), back to the starting point. The same thing occurs, only in a still more marked degree, in trying to cause the balls to roll over the hill (6), around (5^a) and through (5^b) into the space (5).

The broken line 9 in Fig. 3, shows the course which it is intended the balls should be made to follow, in manipulating the puzzle. The arrows at different points show the courses the balls are naturally most likely to follow and which the skill of the person handling the puzzle is required to overcome.

The channels (1^a) and (2^a) may be formed in any suitable manner, or in some cases they may be left out entirely.

The analogy between the nursery rhyme of "Jack and Jill" and this puzzle will be readily perceived.

The body of the puzzle may be made of any suitable material, such as wood, papier mâché, etc., varnished or unvarnished, or it may be made of pressed glass, porcelain, etc., according to whether it is desired to produce an article of lesser or greater cost. The steel balls 10 used in ordinary ball bearings and about one quarter of an inch in diameter are preferred for use with this puzzle, but balls of other material, or ordinary marbles may be used.

The box (7) inclosing the body of the puzzle may be made of pasteboard, wood or other suitable material, and is to be provided with a suitable cover (8).

Obviously, the design of the puzzle, as disclosed above, may be varied greatly without departing from the spirit of this invention, and it is to be understood that the protection of the Letters Patent is desired to extend to any modifications in the above described arrangement of the puzzle, that may come within the scope of the present invention.

Having fully described my invention what I claim as new, is:—

1. In a puzzle of the type described, the combination, in a suitable containing box, of a rectangular incline having a zig-zag groove cut in its face; with a relatively horizontal surface at the upper end of the said incline; with a second rectangular in-

cline suitably grooved, leading from the said horizontal surface to a second horizontal surface, the second incline lying adjacent to, but above the first incline; with
5 two grooves in the shape of an X leading from the second horizontal surface to a rounded knoll and two branches of the said X-grooves forming diverting channels; with the said knoll adjacent to, and above the
10 second incline; and a suitable inclosure on the crest of the said knoll, as specified.

2. In a puzzle, the combination of a plurality of inclined adjacent surfaces sloping consecutively in opposite directions and lying consecutively one above another; with
15 a suitable X-grooved surface leading from the uppermost one of the said inclined surfaces and two branches of the X-forming diverting channels; with a suitable knoll;
20 the said knoll being situated adjacent to,

and in order following, the said grooved surface; and a suitable inclosure surmounting the said knoll; as, and for the purpose, specified.

3. In a puzzle, the combination with an 25 inclined surface, of an adjacent X-grooved surface leading from the upper end thereof with branches of the X forming diverting channels; a rounded knoll approached by the said X-grooved surface, and a suitable 30 inclosure surmounting the said knoll for the purpose specified.

In testimony that I claim the invention described, as my own, I have signed my name to this specification in the presence of 35 two subscribing witnesses.

DWIGHT FARNUM.

Witnesses:

CLARENCE R. ANDERSON,
FRED L. SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."