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PATENTED DEC. 25, 1906.

W. A. DAVENPORT.

PUZZLE.

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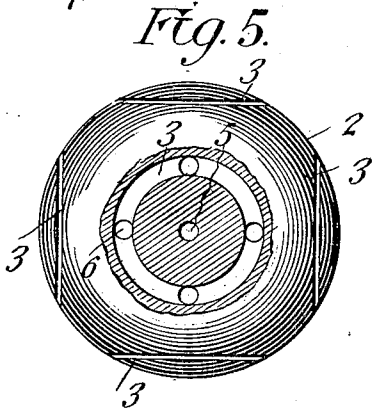
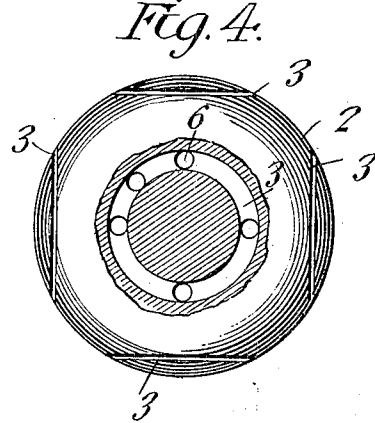
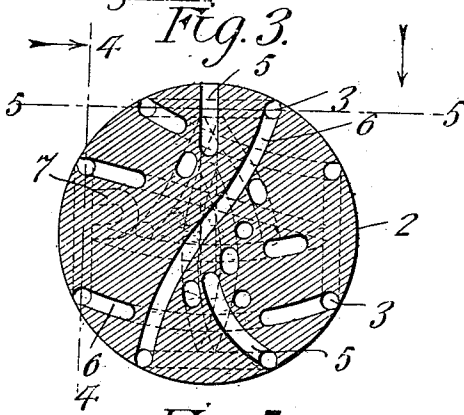
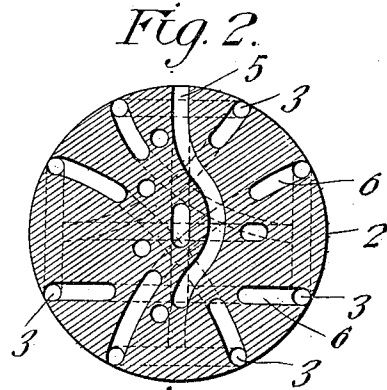
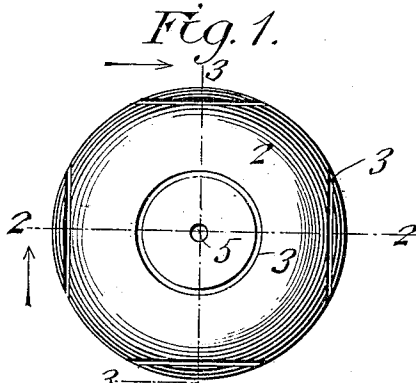


Fig. 6.

9
4

Witnesses

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PUZZLE.

No. 839,733.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM A. DAVENPORT, a citizen of the United States, residing at Shamokin, in the county of Northumberland and State of Pennsylvania, have invented new and useful Improvements in Puzzles, of which the following is a specification.

My invention relates to puzzles; and its primary object is to provide a novel and highly-useful device of this character which will require a high degree of skill to solve the same.

My invention consists of the construction hereinafter fully described, claimed, and illustrated in the accompanying drawings, wherein is disclosed the preferred embodiment of my invention, and wherein—

Figure 1 is a plan view of a puzzle constructed in accordance with my invention. Fig. 2 is a section on the line 2 2 of Fig. 1 looking in the direction indicated by the arrow. Fig. 3 is a section on the line 3 3 of Fig. 1 looking in the direction indicated by the arrow. Fig. 4 is a section on the line 4 4 of Fig. 3 looking in the direction indicated by the arrow. Fig. 5 is a section on the line 5 5 of Fig. 3 looking in the direction indicated by the arrow, and Fig. 6 illustrates a small ball or sphere which is employed in connection with my puzzle.

Referring to the drawings by reference-numerals, 2 designates a spherical body which is to be constructed of any opaque material or composition suitable for the purpose. The body is provided in its surface with six equally-distant annular grooves 3. These grooves receive at times during the manipulation of the body, which is necessary to solve the puzzle, a small ball 4, and they are undercut to prevent the ball from escaping therefrom. A main passage 5 extends from the surface of the body to and communicates with one of the grooves 3, the groove with which said passage communicates being the one located diametrically opposite the entrance to the passage. The grooves 3 communicate with each other through the medium of subordinate passages 6, which may be straight or curved and which may intersect each other. The body is also pro-

vided with one or more U-shaped subordinate passages 7, which communicate at both ends with one of the grooves 3.

In the process of working the puzzle the ball 4 is placed within the passage 5 and directed into the groove 3, with which said passage communicates, and then the operator attempts, by turning or manipulating the body in his hands, to so control the movements of the ball as to direct it through the passage back into the entrance portion of the passage 5, from which it may be removed, thereby solving the puzzle, it being understood that in the working of the puzzle it is not permissible to allow the ball to roll back from the bottom of the passage 5, but that it must be caused to pass into the groove 3, with which said passage communicates, and thence worked through the subordinate passages back to the entrance of said passages 5. Owing to the opacity of the body, the ball is only visible when it is in one of the grooves 3, and therefore it will be apparent that the operator cannot control the movements of the ball in the passages by visual observation, but must regulate its movements by skilled manipulation and calculation, thus rendering the puzzle difficult to solve and cause interest and amusement. Owing to the fact that the grooves 3 communicate with each other, considerable amusement will be excited by the ball appearing in the different grooves during the manipulation of the body.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the invention should be understood without a further extended description.

Changes in the form, proportions, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having fully described and illustrated my invention, what I claim is—

1. The herein-described puzzle consisting of a body provided with two or more grooves in the surface thereof, with passages communicating said grooves, and with another passage communicating with one of said grooves and having its entrance located in the sur-

face of the body, and a ball adapted to travel in said grooves and passages.

2. The herein-described puzzle comprising a spherical body provided with two or more
5 grooves in the surface thereof, with passages communicating said grooves, and with another passage communicating with one of said grooves and having its entrance located

in the surface thereof, and a ball adapted to travel in said grooves and passages. 10

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM A. DAVENPORT.

Witnesses:

PHILIP CONBEER,
BARTLEY DANE.