

No. 737,367.

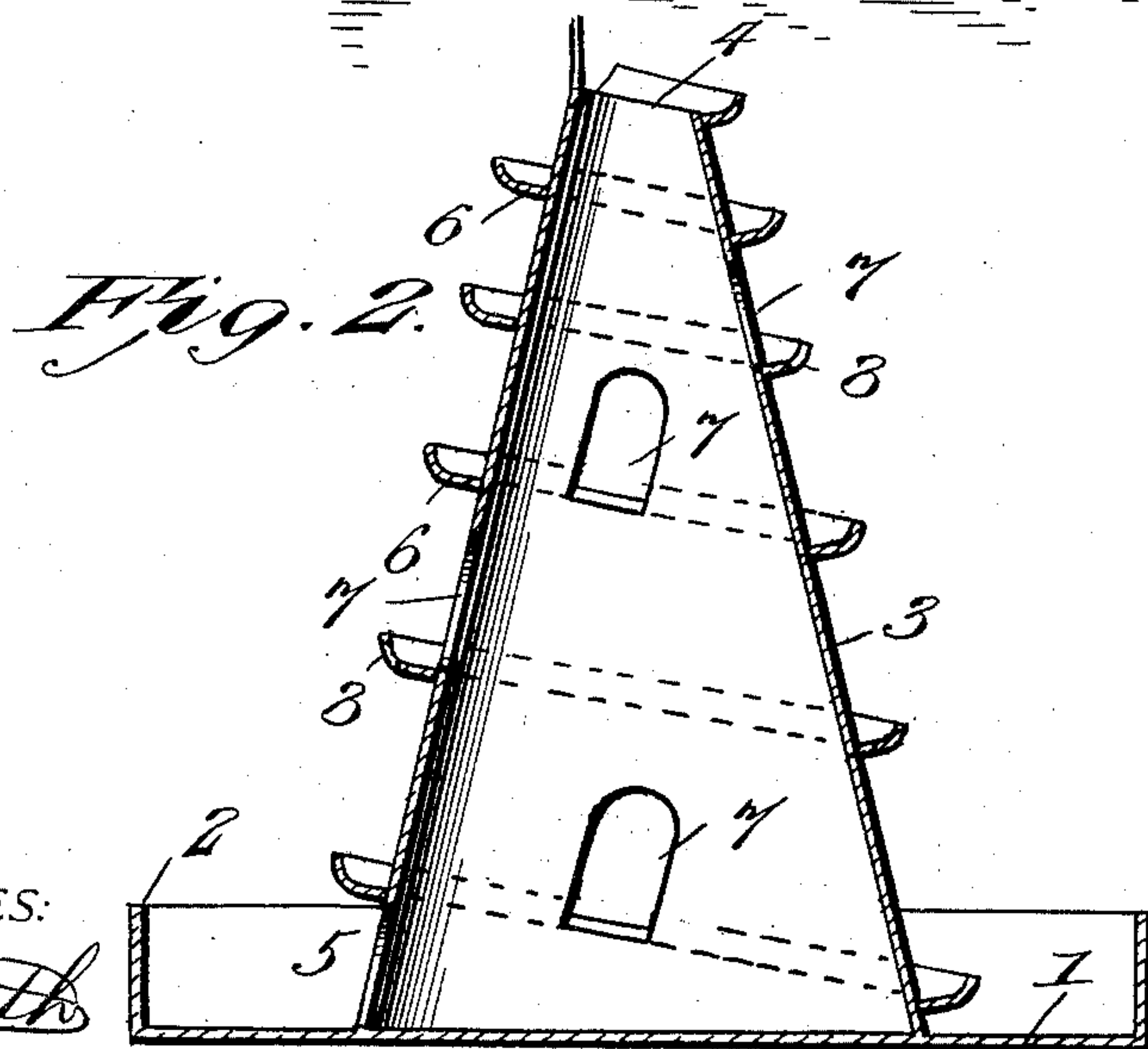
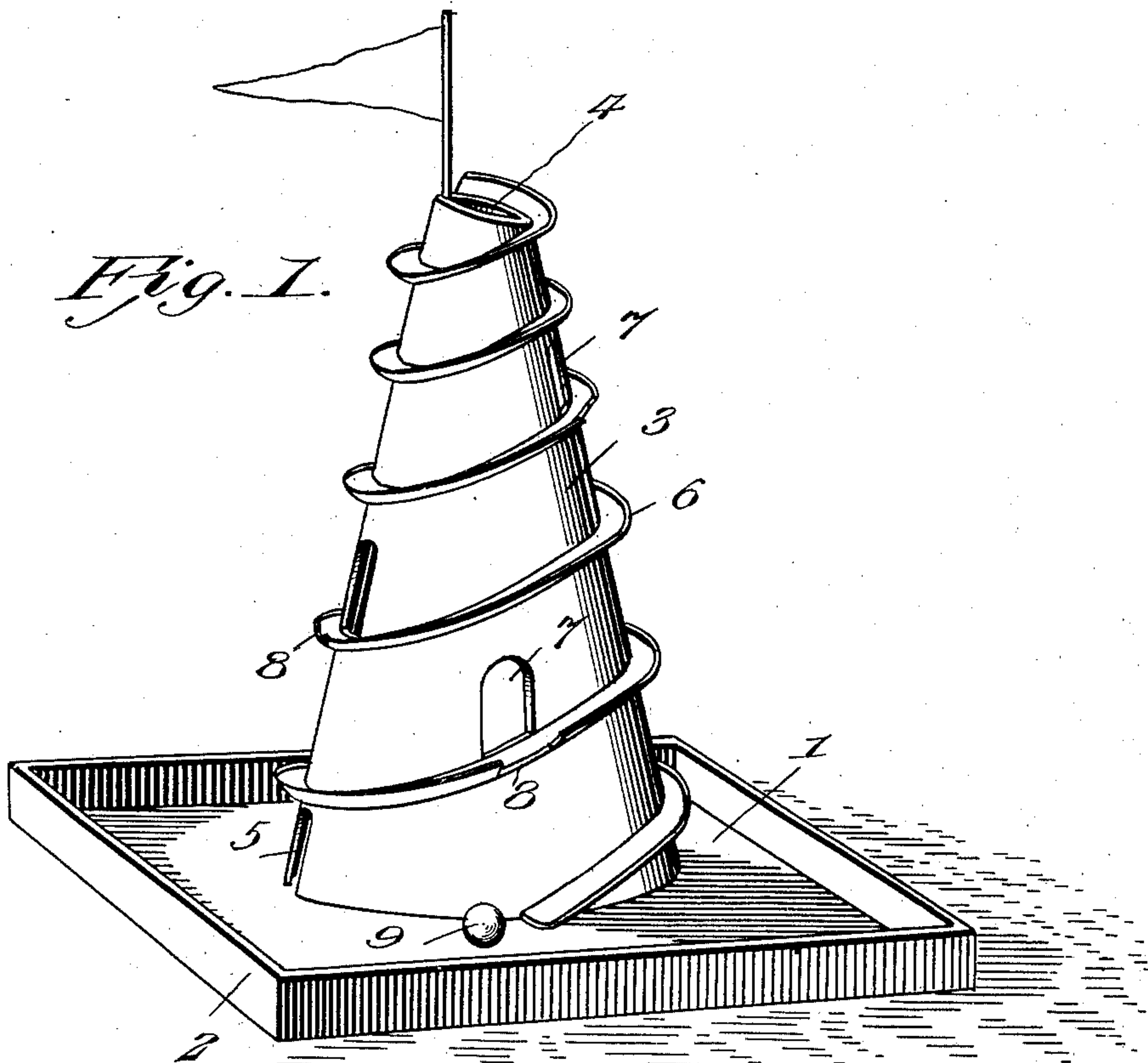
PATENTED AUG. 25, 1903.

J. H. DIERINGER & C. L. DU ROCHER.

PUZZLE.

APPLICATION FILED JUNE 6, 1903.

NO MODEL.



WITNESSES:

Wm. North

Arthur D. Lawson

INVENTORS

J. H. Dieringer,
C. L. Du Rocher,

BY

Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH H. DIERINGER, OF BRIDGEPORT, CONNECTICUT, AND CHARLES L. DU ROCHER, OF BALTIMORE, MARYLAND.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 737,367, dated August 25, 1903.

Application filed June 6, 1903. Serial No. 160,419. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH H. DIERINGER, residing at Bridgeport, in the county of Fairfield and State of Connecticut, and
 5 CHARLES L. DU ROCHER, residing at Baltimore, Maryland, citizens of the United States, have invented new and useful Improvements in Puzzles, of which the following is a specification.

10 Our invention relates to new and useful improvements in puzzles; and its object is to produce a puzzle of novel form and which requires the expenditure of considerable skill and ingenuity to solve the same.

15 The invention consists in providing a board on which is arranged a conical tower inclosed by a helical path which is concavo-convex in cross-section and leads to an aperture formed within the apex of the tower. Apertures
 20 leading into the interior of the tower are arranged at desired intervals along the path, and the outer sides of the path are cut away opposite these apertures, so as to render extremely difficult the passage of a ball or other
 25 spherical objects along the path and past the aperture.

The invention also consists in the novel construction, combination, and arrangement of parts hereinafter more fully described
 30 and claimed, and illustrated in the accompanying drawings, showing the preferred form of our invention, and in which—

Figure 1 is a perspective view of our improved puzzle, and Fig. 2 is a vertical section
 35 therethrough.

Referring to the figures by numerals of reference, 1 is a board, preferably inclosed by flanges 2. Extending upward from this board is a hollow conical tower 3, having an inlet-
 40 aperture 4 in the apex thereof and an outlet 5 at the bottom. A helical path 6 incloses the tower and extends from the bottom to the top thereof, and this path is preferably concavo-convex in cross-section, as shown. Ap-
 45 ertures 7 are arranged within the sides of the tower at suitable intervals, their lower edges being in alinement with the bottom of the path 6, and the outer edges of the path are cut away at points directly opposite the ap-
 50 ertures 7, as shown at 18.

In using this puzzle a small ball or sphere 9 is employed. This is placed upon the board 1, and the object is to so manipulate the board and sphere as to cause said sphere to roll along the path 6, past the apertures 7
 55 and cut-away portions 8, and into the aperture 4. It will drop from this aperture to the bottom of the tower and can then be removed by rolling it outward from aperture 5. As will be readily understood, considerable diffi-
 60 culty will be experienced in rolling the sphere past the apertures 7, as the tendency will be to roll therethrough.

The puzzle is extremely simple and inexpensive in construction and excites consid-
 65 erable interest and amusement in the manipulation thereof.

In the foregoing description we have shown the preferred form of our invention; but we do not limit ourselves thereto, as we are aware
 70 that modifications may be made therein without departing from the spirit of the invention, and we therefore reserve the right to make such changes and alterations as may fairly fall within the scope of our invention.

75 Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

In a device of the character described, the combination with a base; of a hollow conical
 80 tower thereon having an inlet at the apex and an outlet at the side of the bottom of the tower and in alinement with the base, a helical path inclosing the tower and leading from the base to the inlet, said path being concavo-convex
 85 in cross-section and having its outer edges cut away at intervals, apertures being formed within the sides and communicating with the interior of the tower, said apertures also being located directly opposite the cut-away
 90 portions of the path.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH H. DIERINGER.
 CHAS. L. DU ROCHER.

Witnesses:

L. D. GASSAWAY,
 JAS. A. WALTON.