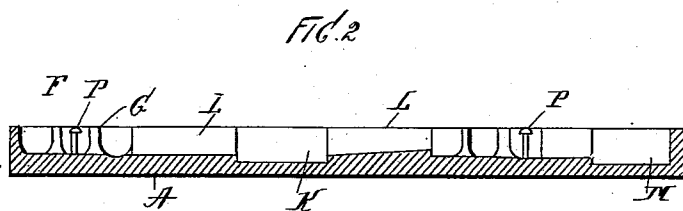
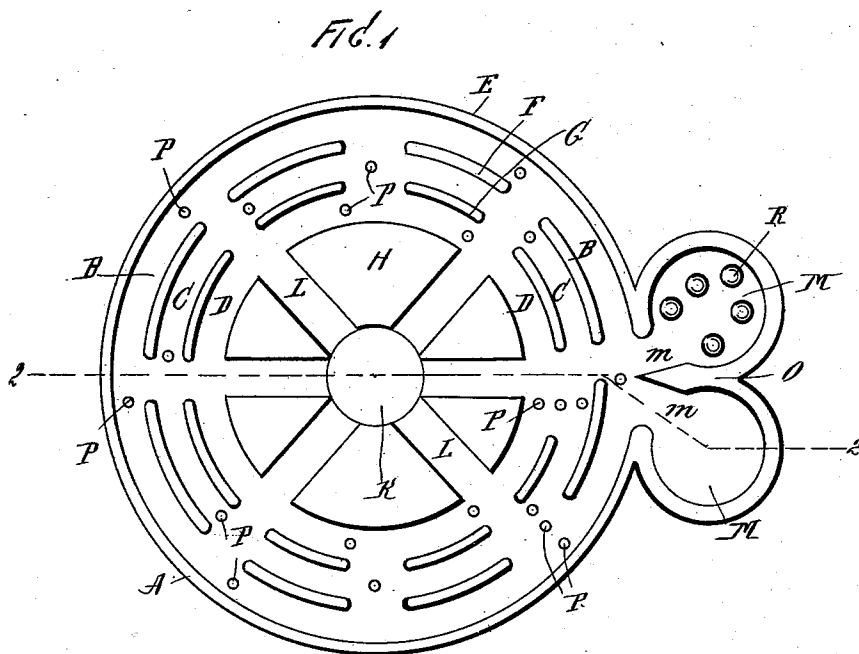


(No Model.)

H. GILES.
PUZZLE.

No. 569,194.

Patented Oct. 13, 1896.



WITNESSES:

Wm. Buckler,
E. G. Smith

INVENTOR

Harvey Giles
BY
Edgar Saterlee
ATTORNEYS

UNITED STATES PATENT OFFICE.

HARVEY GILES, OF BOUND BROOK, NEW JERSEY.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 569,194, dated October 13, 1896.

Application filed March 19, 1896. Serial No. 583,972. (No model.)

To all whom it may concern:

Be it known that I, HARVEY GILES, a citizen of the United States, and a resident of Bound Brook, in the county of Somerset and State of New Jersey, have invented certain new and useful Improvements in Puzzles, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to puzzles, and the object thereof is to provide an improved device of this class which is simple in construction and the operation of which, though difficult, may be accomplished by the exercise of care, skill, and ingenuity in the manipulation of the device.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a plan view of my improved puzzle, and Fig. 2 a section on the line 2 2.

In the practice of my invention I provide a box or casing A, which is preferably circular in form and which is provided with a plurality of annular chambers B, C, and D, which are formed by vertical circular flanges E, F, and G and a central vertical raised portion H, within which is formed a circular chamber K.

The vertical circular flanges F and G and the central circular raised portion H are divided by radial passages L, six of which are preferably provided, but two of which do not transverse the circular raised portion H, and formed at one side are two circular chambers M, which are separated by an inwardly-directed partition-wall O, and said circular chambers M communicate with the outer annular chamber B by means of passages *m*. I also provide a plurality of vertical pins P, which are preferably arranged as shown in the drawings, and a plurality of balls or spherical bodies R, six of which are shown, and, as will be observed, the central circular chamber K is deeper than the annular chambers B, C, and D and also deeper than the radial passages L, and the left circular chamber M is also deeper than said radial passages and said annular chambers, and the solution of the puzzle consists in manipulating the de-

vice so as to pass the balls or spherical bodies R from one of said chambers into the other without said balls or spherical bodies entering the central circular chamber K.

The pins P are so arranged at various points as to prevent the passage of the balls or spherical bodies R through the annular chambers B, C, and D except in certain directions, and the entrance into said annular chambers B, C, and D at one side, opposite the circular chambers M, is entirely cut off by means of the pins P and by means of the peculiar arrangement of said pins, the construction of the annular chambers, and the radial passages by which the walls thereof are divided. This solution is exceedingly difficult, but it may be accomplished by the exercise of care, skill, and ingenuity in the manipulation of the device; and said solution or the effort to accomplish the same is both interesting and entertaining.

My improved puzzle may be constructed by simply providing a plate or board and forming the annular chambers and the various passages and the circular chambers connected therewith in such plate or board, and this is the process which I prefer to adopt in the construction thereof, and my invention is not limited to the form, construction, and arrangement or to the details thereof as herein described; and I reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The herein-described puzzle, which comprises a plate or board, having a plurality of annular chambers, a central circular chamber, radial passages which form communications between all of said annular chambers, and said circular chamber, two circular chambers at the side of the outer annular chamber, and communicating therewith, and a plurality of balls or spherical bodies which are adapted to be placed in one of said outer chambers, and to be passed into the other, said annular chambers being also provided with a plurality of vertical pins, by which the passage of the balls or bodies through, are prevented except

in certain directions, substantially as shown and described.

2. The herein-described puzzle, which comprises a plate or board, having a plurality of annular chambers, a central circular chamber, radial passages which form communications between all of said annular chambers, and said circular chamber, two circular chambers at the side of the outer annular chamber, and communicating therewith, and a plurality of balls or spherical bodies, which are adapted to be placed in one of said outer chambers, and to be passed into the other, said annular chambers being also provided with a plurality of vertical pins, by which the passage of the

balls or bodies through are prevented except in certain directions, and the central circular chamber and one of the side circular chambers which communicate with the outer annular chamber being deeper than said annular chambers and said radial passages, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 14th day of March, 1896.

HARVEY GILES.

Witnesses:

GEORGE H. PALMER,
EUGENE SHOTWELL.