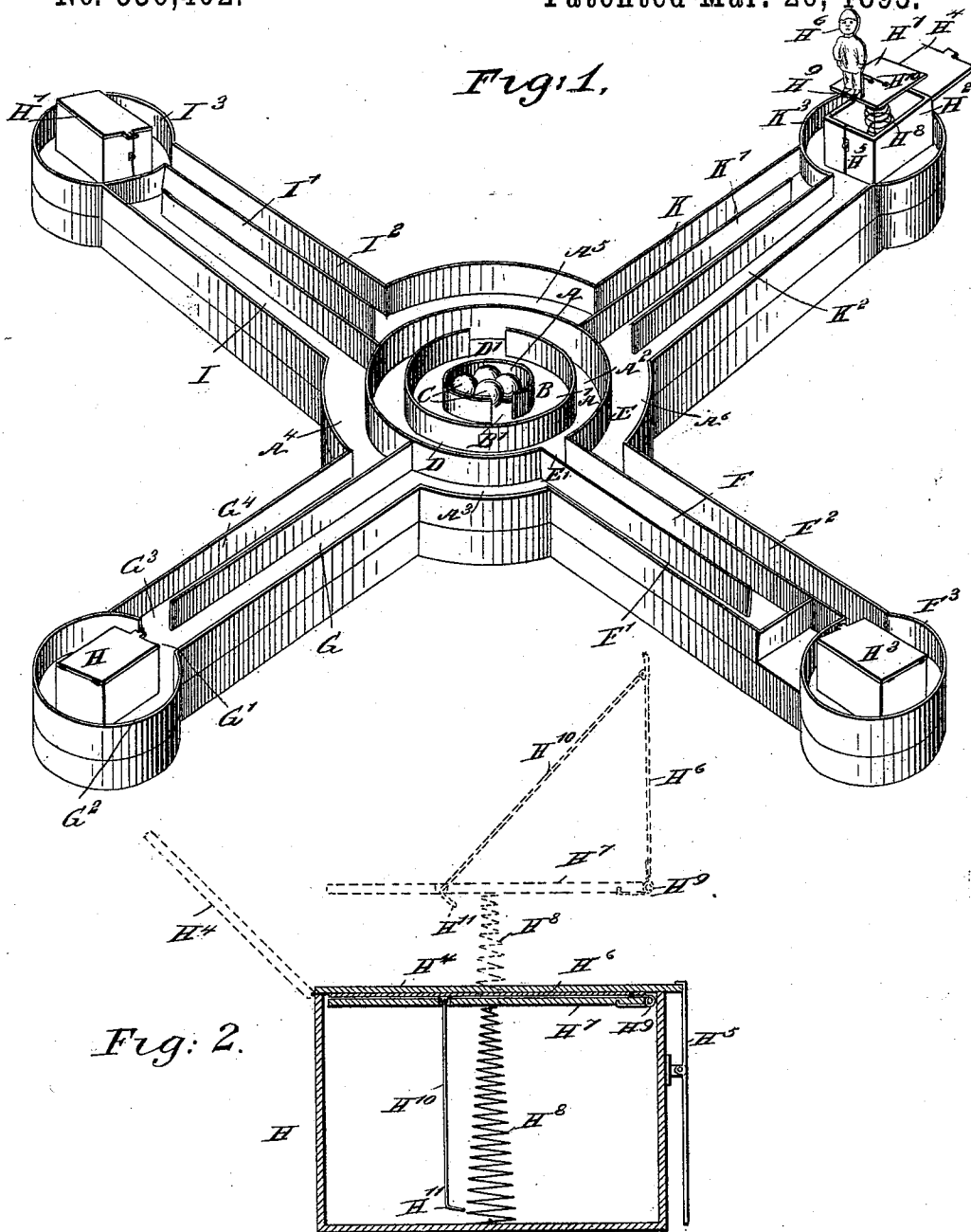


(No Model.)

H. E. L. FISHER.
PUZZLE.

No. 536,462.

Patented Mar. 26, 1895.



WITNESSES:

WITNESSES:
John A. Kenney
Rev. J. H. Foster

INVENTOR

Helen Eva Louise Fisher

BY

3Y Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HELEN EVA LOUISE FISHER, OF GERMANTOWN, NEW YORK.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 536,462, dated March 26, 1895.

Application filed November 9, 1894. Serial No. 528,271. (No model.)

To all whom it may concern:

Be it known that I, HELEN EVA LOUISE FISHER, of Germantown, in the county of Columbia and State of New York, have invented
5 a new and Improved Puzzle, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved puzzle, arranged to afford considerable amusement to the player, and
10 constructed in such a manner as to require considerable skill to properly solve the puzzle.

The invention consists of central concentric inclosures having gates for the passage of balls, and paths or channels extending
15 from the outer wall of the said inclosures and each having a dividing longitudinal partition, and a receiving chamber at the outer end.

The invention further consists of a receiving chamber provided with a box containing
20 a spring-pressed figure, and a locking device for holding the figure in a closed or shielded position, the said device being arranged to be unlocked by one of the balls.

The invention also consists in certain parts
25 and details, and combinations of the same, as will be hereinafter fully described and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification,
30 in which similar letters of reference indicate corresponding parts in both views.

Figure 1 is a perspective view of the improvement; and Fig. 2 is an enlarged sectional side elevation of one of the boxes.

The improved puzzle is made of wood, metal
35 or other material and is provided at its middle with a number of inclosures comprising a central space A and concentric channels or spaces A' and A², formed by concentric walls and of which the central inclosure A is formed in its wall B with an opening or gate B' for
40 the exit of the balls C, preferably four in number, and contained on starting the solving of the puzzle, in the central inclosure A.

The gate B' leads into the annular channel A' bounded by the concentric wall D, having an opening or gate D' leading to the annular space or channel A², inclosed by the concentric wall E, as plainly shown in the drawings.
50 This outermost channel A² leads by a gate E' to a path or channel F extending radially from the said inclosure to connect at its outer

end with a second channel F', extending inwardly parallel to the channel F and leading through channel A² to a channel G extending
55 approximately at right angles to the channel F', and outwardly from the central inclosure A. The outer end of this channel G connects by an entrance or gateway G' with a chamber G², preferably made circular, and containing a box H, having a hinged lid or top
60 H⁴, normally locked in position by a lever catch H⁵ fulcrumed on the front side of the box, to be engaged at its lower end by one of the balls C, to release the upper hook end of
65 the catch and permit the spring-pressed top to swing into an open position by the action of the spring H⁸.

On the inside of the box H under the cover H⁴ is held a figure H⁶ preferably in the form
70 of a Brownie and pivoted at its feet on the front edge of a plate H⁷, secured on the upper end of the coiled spring H⁸, set in the box and adapted to be compressed on closing the lid or top H⁴. The hinge for the figure H⁶ is
75 preferably a spring hinge H⁹, so that on releasing the top H⁴, the figure is forced into a vertical position by its spring hinge and is thus displayed to the view of the player. In order to limit the upward swinging motion of
80 the figure H⁶, I provide the latter with stop arms H¹⁰ connected with the back of the figure and passing through apertures in the plate H⁷. The stop arms H¹⁰ are formed at their lower ends with lugs H¹¹ adapted to rest
85 against the under side of the plate H⁷ when the figure is in vertical position.

The outer end of the channel G is connected by the gate G³ with a channel G⁴ extending inwardly from the chamber G² to within a
90 short distance of the wall E, this channel being arranged alongside the channel G. The inner end of the channel G⁴ connects by a segmental channel A⁴ with a channel I, extending outwardly approximately at right angles
95 to the channel G⁴, and from the outer wall E, as plainly indicated in Fig. 1.

The outer end of the channel I connects with a second channel I', extending inwardly
100 alongside the channel I, to then connect with a third outwardly extending channel I² arranged alongside the channel I', and connected at its outer end with a chamber I³, containing a box H' similar in construction to

the box H previously mentioned. The inner end of the channel I² also connects by a segmental channel A⁵, with a channel K extending approximately at right angles to the channel I² and from the outer wall E, and the outer end of this channel K connects with an inwardly-extending channel K' arranged alongside the channel K, and connected at its inner end with a third outwardly extending channel K², leading to a chamber K³ containing a box H² similar to the boxes H and H'. The inner end of the channel K² connects by a segmental channel A⁶ with a channel F² arranged alongside the channel F, and leading to a chamber F³, likewise containing a box H³ similar to the other boxes H, H', H² previously mentioned.

It will be seen that by the arrangement described, a continuous channel is formed from the central inclosure, to permit a ball C to pass through this continuous channel, to finally reach the chamber F³. The chambers G², I³, K³, and F³ are numbered or otherwise marked, and similar numbers or corresponding characters are arranged on the balls C, the latter corresponding in number to the number of the chambers above mentioned.

In order to properly solve the puzzle, the balls are first placed in the central inclosure A and are then permitted to roll through the gate B' and the continuous channel to the chambers G², I³, K³ and F³, but in such a manner that like numbered balls are retained in correspondingly numbered chambers, and the ball for the right chamber is to strike the catch to cause the hinged top of the box H, H', H² or H³, to swing into an open position to display the Brownie or other figure. In case a wrongly numbered ball enters a chamber and releases the spring-pressed top by striking the catch, then such ball has to be returned to the central inclosure and be started over again.

It will be seen that by the arrangement described, considerable skill is required to prop-

erly solve the puzzle, and at the same time the solving of the puzzle affords considerable amusement.

It is understood that the balls must be permitted to roll on their own account through the continuous channel, the player tilting the puzzle accordingly to cause the balls to roll in the desired direction.

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

1. A puzzle having concentric circular inclosures having gates for the passage of balls, the said balls, channels extending at angles to the outer inclosure and communicating therewith at their inner ends, partitions extending centrally along a portion of the length of said channels, the inner ends of the partitions extending across the outer circular inclosure, receiving chambers located at the outer ends of the channels and adapted to communicate therewith on opposite sides of the partitions, and indicating devices located in said chambers and adapted to be actuated by the balls, substantially as set forth.

2. The combination of a box having a removable cover and a spring-supported figure hinged at one side of the box and adapted to fold down in the same beneath the cover when the same is closed, substantially as set forth.

3. The combination of a box having a removable cover, a perforated plate located in the box, a spring supported figure hinged at one side of the plate, and a brace connected at one end to the figure and having its other end extending through the perforated plate and enlarged below the same, said figure being adapted to be folded down within the box and held in place therein when the cover is closed, substantially as set forth.

HELEN EVA LOUISE FISHER.

Witnesses:

THEO. G. HOSTER,
C. SEDGWICK.