

(No Model.)

N. A. SWETT.  
PUZZLE.

No. 451,958.

Patented May 12, 1891.

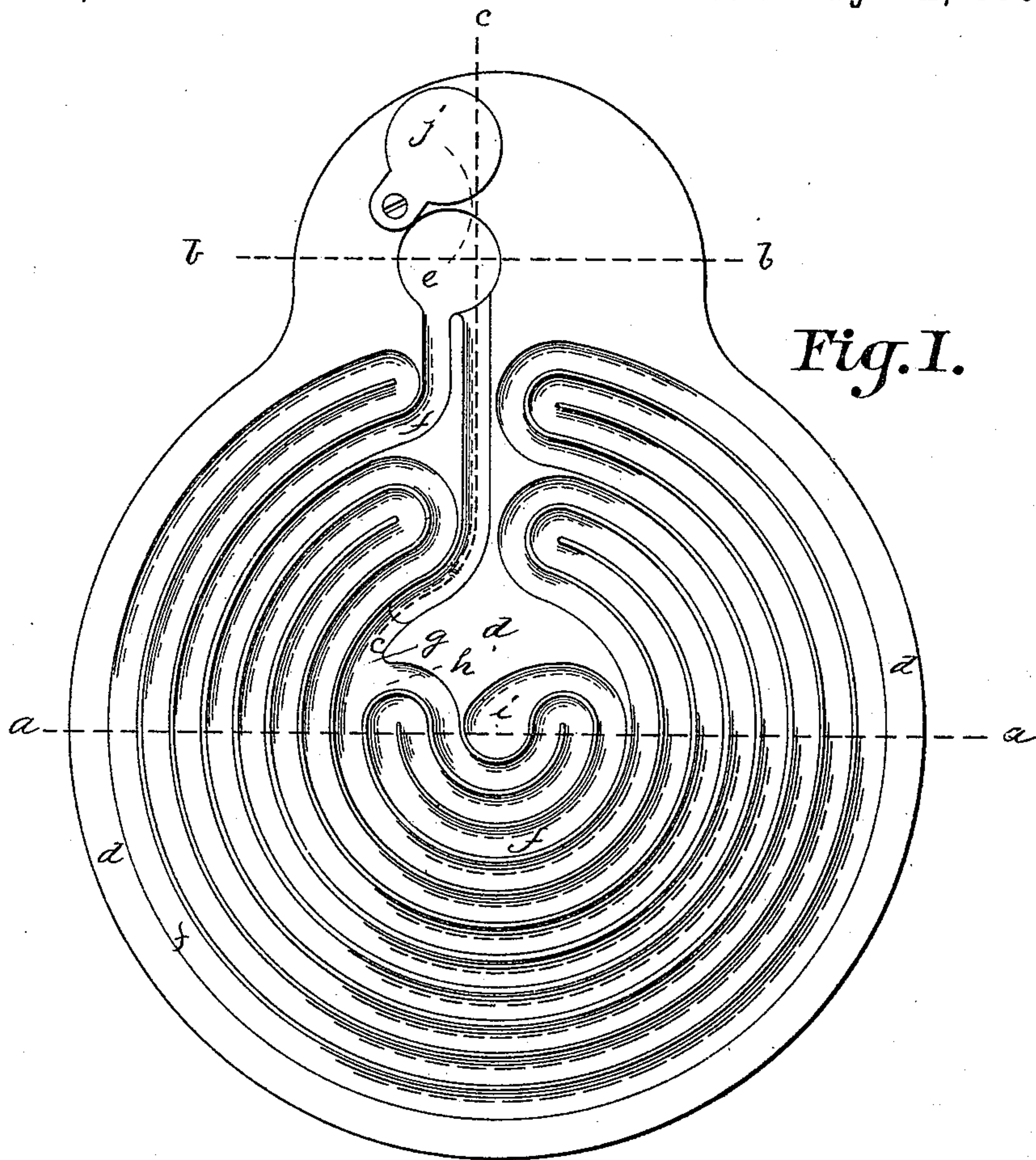


Fig. 1.

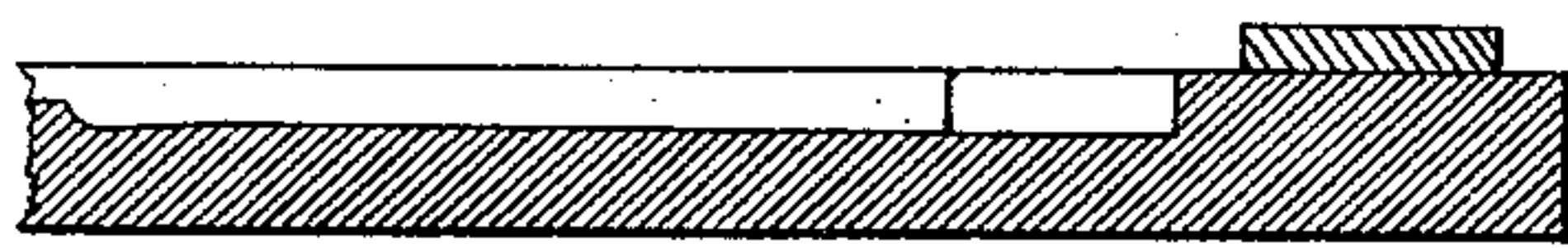


Fig. 2.



Fig. 3.

Fig. 4.



Witnesses:  
Nathaniel Clifford.  
Arthur C. Libby.

Inventor.  
Nathaniel A. Swett,  
per Elynn L. Merrill,  
att'y.



# UNITED STATES PATENT OFFICE.

NATHANIEL A. SWETT, OF WESTBROOK, MAINE.

## PUZZLE.

SPECIFICATION forming part of Letters Patent No. 451,958, dated May 12, 1891.

Application filed February 16, 1891. Serial No. 381,544. (No model.)

*To all whom it may concern:*

Be it known that I, NATHANIEL A. SWETT, of Westbrook, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Puzzles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a plan of the board, showing grooves, starting-point, and home. Fig. 2 is a section on line *a a*. Fig. 3 is a section on line *b b*. Fig. 4 is a section on line *c c*.

The same letters refer to like parts.

My invention refers to that class of puzzles in which a number of balls are caused to travel in grooves, and in which said balls are liable to get out of the right course as the board is turned from side to side instead of continuing on to the home.

It consists of a suitable board or base, upon which or in which are made a series of grooves more or less nearly circular, but not extending quite around the board, said curves turning back on each other in such manner that balls will travel from one side of the board around to the other, as shown in Fig. 1, said balls starting from a well sunk in the board in which said curved groove has its beginning and continuing around in said groove until they reach the home, or by chance, if the operator is not skillful, until one or more of them returns to the point of beginning.

In said drawings, *d* represents the puzzle-board; *e*, a well sunk in the board into which the balls are put and out of which they run into the end of the groove. Out of well *e* starts a groove *f*, which continues around the board nearly to the point of beginning of the groove; thence making a short curve it returns on a line parallel with itself, and so back and forth several times until near the center of the board, where it forks, one branch

*g* continuing out and into the well in which it took its rise, and the other *h* making one or more turns back and forth, as before, and terminating in the center of the board at a point *i*, which I call the "home," because the game is to prevent the balls from getting back into the starting-well and cause them to take the groove *h*, which leads to their proper destination. For the sake of convenience, the well *e* has a sloping bottom, the deepest part being on that side out of which the groove takes its rise, as seen in Fig. 3, the bottom of the groove being level with the bottom of the lowest part of the well at point of beginning, but gradually rising for a short distance. This is so arranged to permit the balls to run out of the well into the groove easily when the board is tipped. At or near the point where the groove forks that part which continues to the starting-point begins to slope gradually toward said starting-point, thus rendering it more difficult to cause the balls to take the right groove.

In order to keep the balls secure when the puzzle is not in use a pivoted cover *j* may be attached to the board in such manner that it may be swung over the well when the balls are therein.

Having thus described my invention and its use, what I claim, and desire to secure by Letters Patent of the United States, is—

In a puzzle, a board having a groove therein leading out of a well and extending from one side of the board to the other in more or less nearly circular and parallel lines, said groove forking at some point near the center of the board, one branch leading out into the well at the point of beginning, and the other continuing on to a point at the center of the board, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

NATHANIEL A. SWETT.

Witnesses:

ELGIN C. VERRILL,  
NATHAN CLIFFORD.