



# UNITED STATES PATENT OFFICE.

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## PUZZLE.

SPECIFICATION forming part of Letters Patent No. 618,871, dated February 7, 1899.

Application filed April 19, 1898. Serial No. 678,111. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. HANSON, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Puzzles; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to puzzles; and its object is to provide an ingenious and yet simple device for affording amusement and study.

It consists in a board containing certain channels, hereinafter specified, in combination with a series of movable blocks, some circular and some lune-shaped. Certain blocks are marked with numerals or other distinguishing devices; and the object of the puzzle is to so move the blocks in the channels as to bring about a certain arrangement and disposition of the marked ones.

In the drawings, Figure 1 is an isometric perspective view of my puzzle. Fig. 2 shows one of the circular blocks, and Fig. 3 one of the lune-shaped ones.

The board may be of any convenient size—say about six inches long and four inches wide. In its upper surface are channels, which may be routed out of a solid board or may be formed by superimposing upon a smooth board a thin plate with an opening cut through it, so that the edges of said opening will form the walls of the channels. This latter construction is shown in Fig. 1, in which A is the bottom board and A' the superimposed plate, which may be secured by nails, glue, or other fastenings and has an opening cut through it to form the channels. There are three parallel transverse channels  $a'$   $a^2$   $a^3$ , the middle one,  $a'$ , being preferably longer than the end ones. A central lengthwise channel  $a^4$  connects the transverse channels. At the intersection of the channels  $a'$  and  $a^4$  the corners  $a^5$  of the plate are cut off diagonally, as shown. At the point of intersection of the center lines of these channels an up-

right post  $A^2$  is set in the board. In the middle of the outer wall of each end channel a curved quadrant-shaped notch  $a^6$  is cut opposite the end of the lengthwise channel  $a^4$ . At each end of the channels  $a^2$   $a^3$  are designating-marks, such as the numerals "1, 2, 3, 4."

In the channels are placed eight circular blocks B and four lune-shaped blocks B'. Four of the circular blocks bear designating-marks corresponding with those at the corners of the board. The blocks are all of the same diameter, which is a trifle less than the width of the channels, so that the blocks can slide easily therein. The length of the middle channel is about four and a half diameters. The length of the end channels is a trifle over three diameters. The distance from the notches  $a^6$  to the post  $A^2$  is a trifle over three diameters. The space between the post and the diagonal corners  $a^5$  is the same as the width of the channels.

The blocks being arranged as shown in Fig. 1, with the marked blocks in the middle channel, the puzzle consists in moving all the blocks about without lifting them from the channels until the marked blocks have been distributed at the ends of the end channels  $a^2$   $a^3$ , adjacent to the corresponding marks on the board.

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

1. A puzzle consisting of a board having three transverse channels, a central lengthwise intersecting channel, a post at the intersection of the lengthwise and middle channels, diagonal corners facing said post, and a plurality of blocks, some circular and some lune-shaped, adapted to slide in said channels, substantially as described.

2. A puzzle consisting of a board having three parallel transverse channels, the middle one being longer than the others, a central lengthwise intersecting channel, diagonal corners at the intersection of the lengthwise and middle channels, a post at the intersection of the center lines of said channels, curved notches in the outer walls of the end channels opposite the ends of the lengthwise channel, and a plurality of blocks, some circular



and some lune-shaped, adapted to slide in said channels, substantially as described.

3. A puzzle consisting of a board having the transverse channels  $a'$   $a^2$   $a^3$ , the length-  
5 wise channel  $a^4$ , the diagonal corners  $a^5$ , the notches  $a^6$ , the post  $A^2$  and the marks at the ends of the channels  $a^2$   $a^3$ , in combination with the blocks B B', some bearing marks

corresponding with those on the board, substantially as described. 10

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

JOHN S. HANSON.

Witnesses:

WILLIAM A. THOMAS,  
FRANK A. BURRELL.