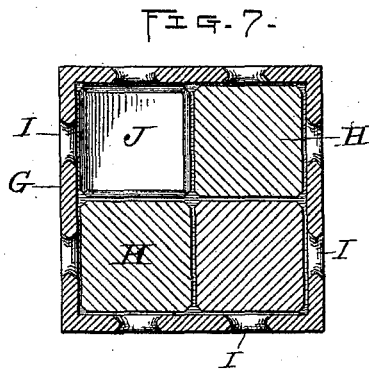
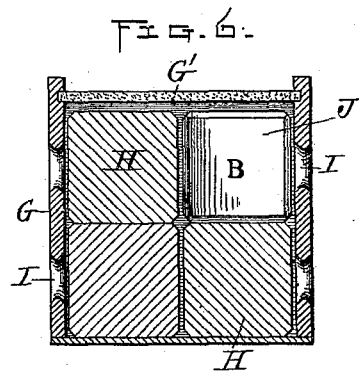
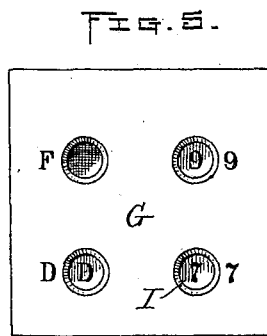
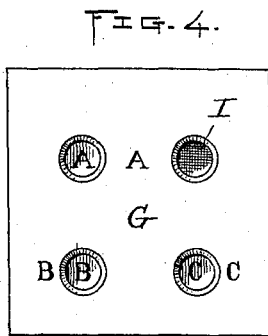
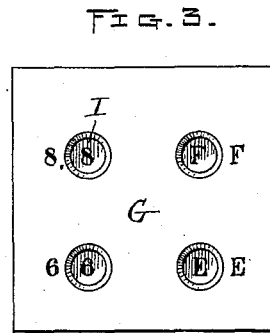
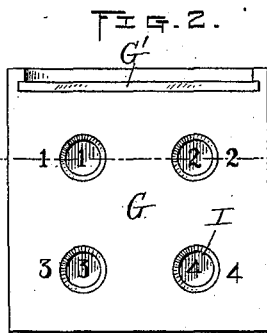
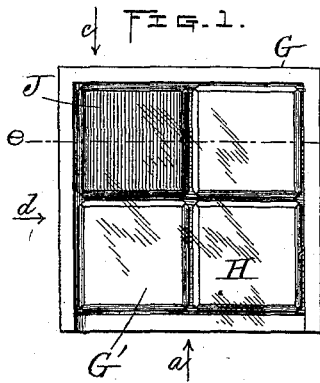


(No Model.)

C. I. RICE.
PUZZLE.

No. 416,344.

Patented Dec. 3, 1889.



Witnesses;
Walter B. Nourse,
Forest G. Vasson.

Inventor;
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By A. A. Barker. Atty.

UNITED STATES PATENT OFFICE.

CHARLES I. RICE, OF WORCESTER, MASSACHUSETTS.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 416,344, dated December 3, 1889.

Application filed September 9, 1889. Serial No. 323,440. (No model.)

To all whom it may concern:

Be it known that I, CHARLES I. RICE, of the city and county of Worcester, and State of Massachusetts, 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, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a top view of the puzzle. Figs. 2, 3, 4, and 5 are side views thereof, looking in the directions of arrows *a*, *b*, *c*, and *d*, respectively, Fig. 1. Fig. 6 is a vertical section on line *e*, Fig. 1, looking in the direction of arrow *e'*; and Fig. 7 is a horizontal section on line *f*, Fig. 2, looking in the direction of arrow *f'*.

My invention consists in arranging a certain number of movable square blocks or cubes, having the sides thereof numbered or lettered, within a suitable box whose capacity is sufficient to contain said blocks, leaving a space equivalent to the size of one block vacant, whose top or cover is preferably made of glass, and whose sides are provided with openings or perforations numbered and lettered to correspond with the numbers and letters on said blocks when the latter are moved into certain positions, the puzzle consisting in bringing the numbers or letters on the blocks, when said blocks are out of their proper positions, in line with the correspondingly numbered and lettered openings of the box, as hereinafter more fully set forth.

To enable others to better understand the construction and manipulation of said puzzle, I will now proceed to describe it more in detail.

In the drawings, *G* represents the box; *G'*, its glass cover, whereby the movements of the blocks *H* may be observed in moving them about to bring them into their proper positions.

I indicates the openings in the sides of the box which enable the numbers on the blocks to be seen from the outside. Each opening is numbered or lettered, as indicated in the drawings, with such numbers or letters as may be desired, and the blocks *H* are also numbered and lettered, upon one side at least, to correspond with the numbers and letters of the openings.

The inside of the box *G* is preferably made square, as are also the blocks *H*, seven of which are employed in this instance. They are fitted sufficiently loose to be easily moved about by turning the box in various directions to bring them into their right positions after having been moved out of the same. By thus employing seven cubes in a square box it is obvious that a space *J* equivalent to one of the cubes is always vacant. Therefore, as will also be seen, all the blocks may be moved vertically or horizontally, and gradually worked into any desired position in either the bottom or top tier of blocks, after various successive moves in different directions, by tipping the box into different positions. By carefully watching the numbers and letters on the blocks as they are moved about in connection with the corresponding numbers and letters of the openings they may, after exercising a due amount of study and patience, be brought in line one with the other, as is indicated in the drawings, thus producing a very pleasing and fascinating amusement for both children and older people, as well as serving to train and strengthen the mind by the figuring and calculation required in bringing each block into its proper position—as, for instance, assuming that a number or letter is at an opposite corner diagonally from the corresponding number or letter of the opening with which it should come in line, considerable study and calculation, as well as many moves, are required to bring said block around where it belongs, one move perhaps throwing all the other blocks into the utmost confusion if the manipulator does not carefully consider each move and calculate where it will terminate.

Although I prefer seven cubes in a square box, as herein set forth, I do not limit myself thereto or to the number of side openings, as the same result may be obtained by the use of various combinations of blocks in boxes of other shapes, in which the space *J*, which would be occupied by one block, is left vacant, the only difference in such case being that by the employment of additional blocks and openings the solution of the puzzle is rendered more difficult and obscure, the method of arriving at the final result being alike in both cases.

What I claim as my invention, and desire to secure by Letters Patent, is—

A puzzle consisting of a box whose cover is made, preferably, of glass, and whose sides are provided with a series of lettered and numbered openings through which the interior may be viewed, in combination with a series of numbered and lettered blocks or cubes adapted to fill the interior of said box, with

the exception of a space equivalent to one of said blocks or cubes, and which are adapted to be moved about into different positions by tipping the box into different positions, substantially as set forth.

CHARLES I. RICE.

Witnesses:

A. A. BARKER,
FORREST C. WESSON.