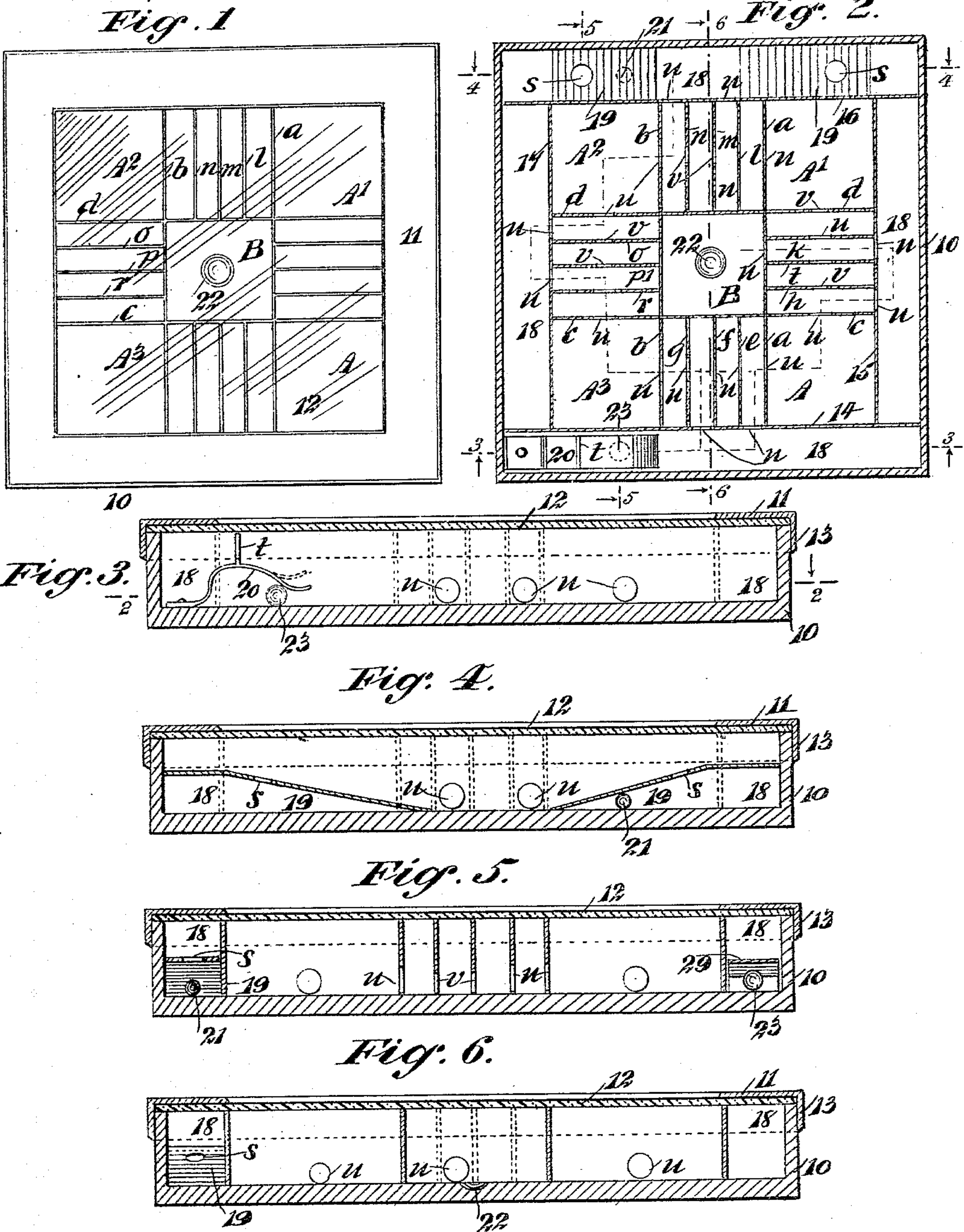


(No Model.)

O. BEISHEIM.  
PUZZLE.

No. 559,661.

Patented May 5, 1896.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

OSCAR BEISHHEIM, OF NEW YORK, N. Y.

## PUZZLE.

SPECIFICATION forming part of Letters Patent No. 559,661, dated May 5, 1896.

Application filed February 26, 1896. Serial No. 580,769. (No model.)

*To all whom it may concern:*

Be it known that I, OSCAR BEISHHEIM, of New York city, in the county and State of New York, have invented certain new and useful Improvements in Puzzles, of which the following is a full, clear, and exact description.

This invention relates to a puzzle of a class wherein balls or like movable objects are inclosed in a small case and by manipulation of the receptacle are caused to enter a certain compartment therein, the moving object being exposed to view through a glazed lid.

The object of the invention is to provide a puzzle of the indicated character which is of unique construction and that will afford amusement, while requiring skill and good judgment for its solution.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, wherein similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the novel puzzle. Fig. 2 is a sectional plan view of the puzzle-case substantially on the line 2 2 in Fig. 3. Fig. 3 is an enlarged transverse sectional view on the line 3 3 in Fig. 2. Fig. 4 is a transverse sectional view essentially on the line 4 4 in Fig. 2. Fig. 5 is a sectional side view substantially on the line 5 5 in Fig. 2, and Fig. 6 is a transverse sectional view through the center of the case on the line 6 6 in Fig. 2.

The case 10 is formed of any suitable material, and preferably is rectangular in contour, having a removable lid 11, provided with a glazed portion 12 of less area than the case, said transparent portion being held in position within the depending flange 13, that is a side wall of the marginal portion of the lid. Four partition-walls 14 15 16 17 are erected in the case 10, each parallel and spaced from a respective side wall of said case, as best shown in Fig. 2, the intervening spaces 18 being preferably of equal width. The space inclosed by the four partition-walls mentioned is evenly subdivided by four partitions  $a b c d$ , that are suitably spaced apart in pairs, one pair crossing the other pair at right angles, and preferably the spaces intervening the parti-

tions  $a b$  and  $c d$  are equal to the spaces between each of these pairs of walls and the partitions 14 15 and 16 17, with which they are respectively arranged in parallel.

It will be seen that the disposition of the partitions  $a b c d$  as described cuts the space inclosed by the walls 14 15 16 17 into nine equal squares or compartments of rectangular outline, of which  $A A' A^2 A^3$  are corner squares and  $B$  the central compartment. The squares located between the corner compartments are each subdivided by three evenly-spaced partitions, as shown at  $e f g$ ,  $h i k$ ,  $l m n$ , and  $o p r$  in Fig. 2.

In one of the spaces 18, that for distinction may be termed "streets," two coverts 19 are located, these having inclined roofs, each perforated, as shown at  $s$  in Figs. 2, 4, 5, and 6. In the street 18, that is parallel with the one having coverts, a spring keeper-plate 20, bent so as to provide a cavity beneath it, is secured at one end to the bottom of the case, the free resilient end being normally held near the bottom of the case by the impingement of a limb  $t$ , that projects from the keeper-plate upon the inner surface of the lid 12 when the latter is completely closed.

The coverts 19 are provided as places of concealment for a small ball 21, that represents a thief or burglar, who may enter either covert through the small apertures  $s$  and remain concealed. A money vault or safe 22 is indicated in the central room  $B$ , which latter is to represent a bank. The coverts 19 are proportioned so that a space will intervene them, and in the street 18 thus left unoccupied the upright partition 16 is apertured, as at  $u$ , forming passages into two narrow lanes that are laterally bounded by the partitions  $b$ ,  $n$ ,  $m$ , and  $l$ . An aperture  $u$ , equal in dimensions to those formed in the partition 16, is produced in the partition  $l$  and also in the partitions  $a b$ , thus opening a road from the street 18 and coverts therein into the corner spaces  $A A'$  for the small ball 21 to traverse, and in each of the partitions  $m n$  a smaller opening  $v$  is formed, through which the small ball 21 will roll; but a ball slightly larger, that can traverse the apertures  $u$ , will not pass through the opening  $v$ . Perforations  $u$  and  $v$ , of two diameters, are formed in the side walls  $a b c d$ , and also in the partitions



e, f, g, h, i, k, o, p, and r, arranged substantially in the order represented in Fig. 2, which afford paths of a more or less devious nature, and the partitions 14 15 17 are also perforated, affording apertures *u*, that are avenues for traverse from the other streets 18, which are exterior of the squares or spaces A A' A<sup>2</sup> A<sup>3</sup>. A ball 23, that represents a detective, is to be placed in hiding under the spring-plate 20, and said ball, which can only roll through the openings *u*, is prevented escaping until the corner of the lid 11 is slightly elevated above the limb *t*, which will permit the plate to rise at its free end.

The nature of the puzzle consists in the requirement that the detective, indicated by the larger ball 23, shall be moved through passages this ball will pass through and catch the thief, represented by the smaller ball 21, and this is rendered more difficult from the fact that the small ball can roll through any of the apertures in the partitions, while the larger ball can pass through but a limited number of these apertures.

The operation is substantially as follows: Assuming that the ball 21 is in one of the coverts 19 and the ball 23 is held in the cavity below the keeper 20, to solve the puzzle by one unacquainted with the interior construction of the device the first obstacle to overcome is the starting of the thief 21 from the covert toward the bank. To do this, the case 10 must be inverted, which will facilitate the rolling of the smaller ball out of the perforation *s* in the roof of the covert wherein the ball is located. Then the operator, after entering the ball 21 within the space bounded by the partitions 14 15 16 17, must release the detective, to do which the lid of the case 10 must be raised at the corner above the keeper 20; and the one solving the puzzle may be required to find out how to start the detective. As the passages are arranged, the detective may traverse paths shown by dotted lines in Fig. 2, so as to enter the bank or center

square B, and also pass across into the street 18, wherein the coverts 19 are located, and the solution of the puzzle requires that the thief and detective be brought together in the central square or bank B.

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

1. A puzzle, comprising a closed case internally divided by partitions affording squares and streets, other partitions in some of the squares providing lanes, all the partitions being perforated to produce openings affording passages from the streets to a central square, and two balls of different diameters, one ball being adapted to traverse all the openings in the partitions, while the other ball from its size is permitted to pass through but a limited number of said openings, substantially as described.

2. A puzzle, comprising a rectangular case, having an adjustable glazed lid, partitions in the case, crossing at right angles and producing streets inclosing squares or compartments, other partitions in some of the compartments affording lanes, all the partitions being perforated to provide paths from the streets to a central square, some of the perforations being smaller than others, two balls of different diameters, the smaller ball being adapted to traverse all the lanes and pass through all the perforations, and the other ball being restricted to movement in predetermined paths, a covert in one of the streets, having a perforation in its roof through which the smaller ball only will pass, and a spring-keeper adapted to cover the larger ball and located in one of the streets, the said keeper being permitted to release the confined ball when the lid of the case is raised, substantially as described.

OSCAR BEISHEIM.

Witnesses:

L. C. GLOCK,  
 W. F. HAMMARTH.