

No. 697,199.

Patented Apr. 8, 1902.

J. B. CLEWLEY.
PUZZLE.

(Application filed June 29, 1901.)

(No Model.)

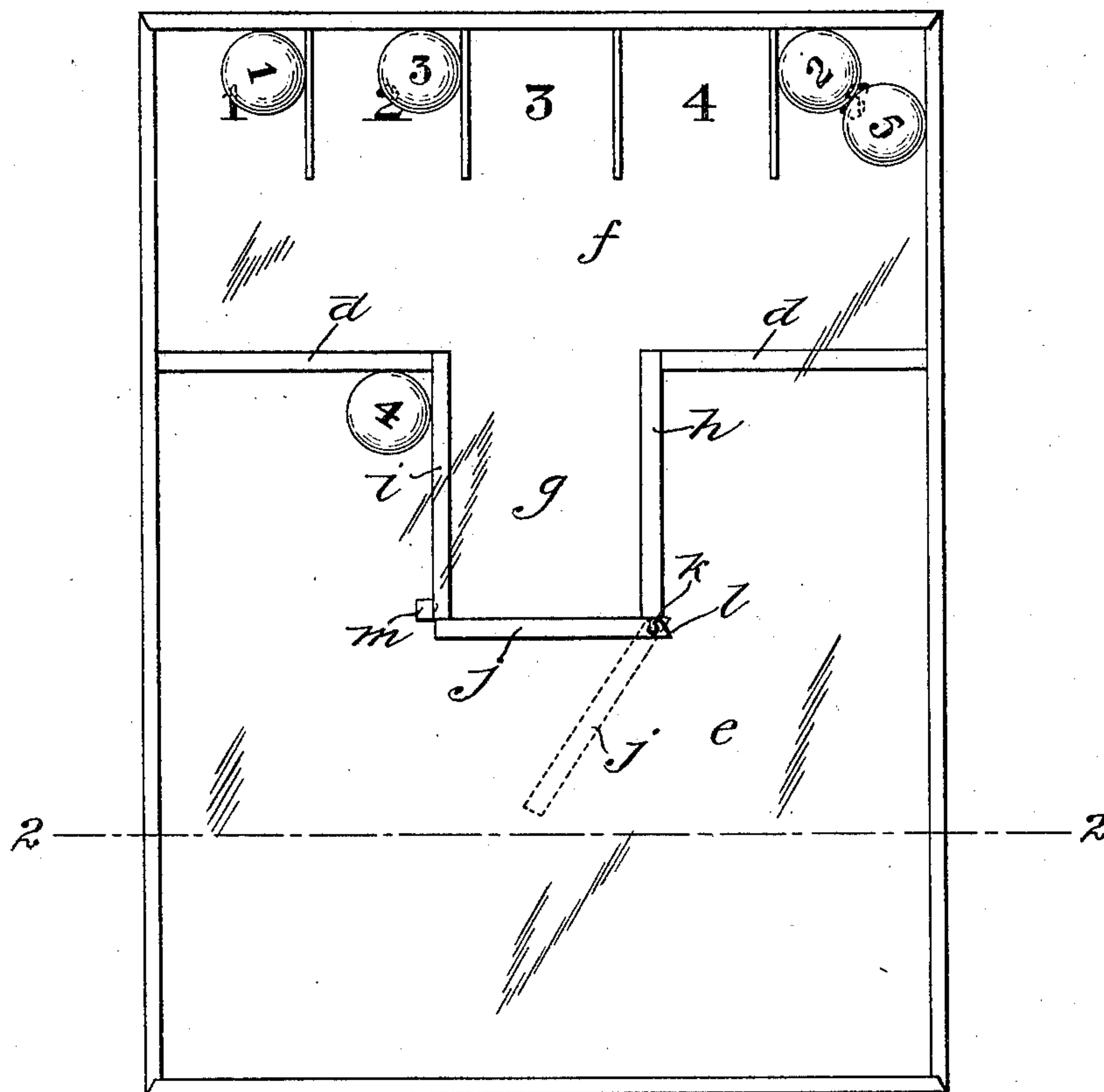


Fig. 1.

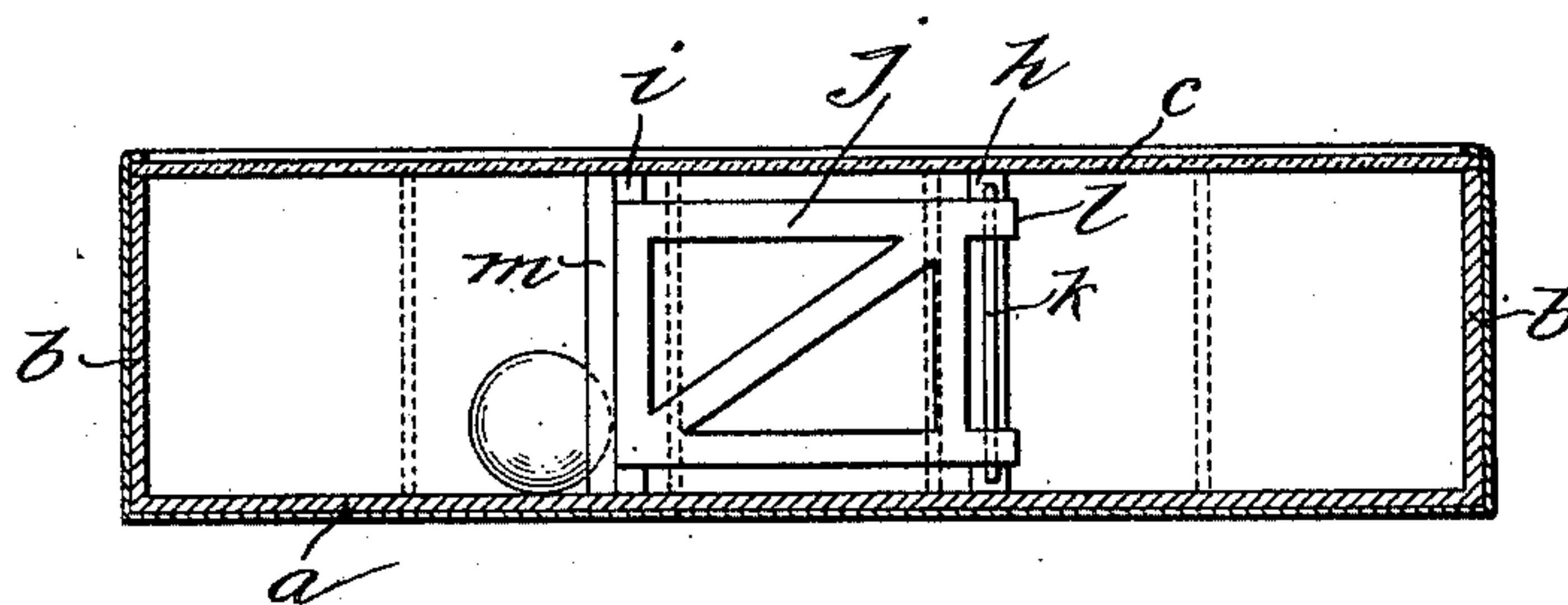


Fig. 2.

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UNITED STATES PATENT OFFICE.

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PUZZLE.

SPECIFICATION forming part of Letters Patent No. 697,199, dated April 8, 1902.

Application filed June 29, 1901. Serial No. 66,598. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH B. CLEWLEY, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Puzzles; and I do hereby 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 ap-
10 pertains to make and use the same.

The present invention relates to puzzles.

The object of the present invention is to construct a puzzle in which balls are arranged to be rolled into certain predetermined posi-
15 tions by tilting the puzzle in one direction or the other, various obstacles being provided which render the puzzle more difficult, and therefore more interesting, and at the same time train and educate the hand and eye of
20 the operator.

To the above end the present puzzle consists in the device hereinafter described and claimed.

In the accompanying drawings, which illustrate a preferred form of my invention, Figure 1 is a plan view, and Fig. 2 a sectional
25 view on line 2 2, Fig. 1, of my improved puzzle or game.

As shown in the drawings, my device comprises a base *a*, surrounded by a continuous wall *b* and provided, preferably, with a cover *c*, of some suitable transparent material, such as glass. By means of a partition *d* two compartments *e* and *f* are formed, a passage-way
30 *g* being provided, which connects the two compartments. The side walls *h* and *i* of this passage-way *g* are extended from the partition-walls *d* into the compartment *e*, and upon the end of side wall *h* is the gate *j*, arranged
40 to swing upon a rod or support *k* and to close the passage-way when the rear end of the puzzle is depressed. The hinge end *l* of the gate *j* is so formed that it acts as a stop to limit the opening movement of the gate, the dotted lines
45 in Fig. 1 indicating the limit to which this gate may swing. Secured to the end of the wall *i* is the projection *m*, the object of which will be hereinafter described.

In the compartment *f* are located the open-
50 ended subcompartments or stalls, numbered consecutively from "1" to "5," into which are to be rolled the marbles or balls, also

numbered consecutively from "1" to "5," the object being to leave in each stall the ball or marble bearing the same number. 55

The mode of operation of my improved puzzle is as follows: All the balls or marbles being in compartment *e*, the operator endeavors by tipping or otherwise manipulating the device to open the gate *j* and then to
60 roll the balls through the passage-way *g* into the compartment *f* and thence each ball into its respective stall. It will be noted, however, that the gate *j* is so mounted that it tends to close as soon as the puzzle is tipped
65 in the direction necessary to cause the balls to roll through the passage-way *g*, the beveled end *l* on the end of the gate preventing the gate from being opened so far that it will not immediately close on the slightest depression
70 of the stall end of the puzzle. It will also be noted that the stalls are of a width less than twice the diameter of the balls, so that in case two balls get into one stall, as illustrated by the balls numbered "2" and "5" in stall "5,"
75 it will be impossible to roll out the ball corresponding to ball "2" without first rolling out the other ball—namely, ball "5." Moreover, when one ball is rolled out of one of the stalls in order to be rolled into its proper stall it nor-
80 mally tends to roll through the passage-way *g* and out of the gateway, as the tipping of the puzzle sufficient to cause a ball to roll out of one of the stalls into the compartment *f* will also be sufficient to cause the gate *j* to open,
85 offering a free and unobstructed passage into the compartment *e*.

The object of the projection *m* is to prevent a ball being rolled first into the angle between the walls *d* and *i*—that is, into the
90 position occupied by ball "4"—and then by slightly depressing the front right-hand corner of the device cause the gate to open and the ball to roll along the wall *i* until it reaches the end, when it would roll against the gate *j*
95 and thence through the passage-way *g*. The degree of inclination of the puzzle which is necessary to carry the ball or marble over this projection *m* will generally be sufficient to carry it beyond the end of the gate *j*. All
100 of these various features render the puzzle more difficult, and therefore make it more interesting to the operator.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent of the United States—

A puzzle, having, in combination, a base *a* surrounded by a continuous wall *b*, a trans-verse partition *d* dividing the device into two compartments *e* and *f*, a passage-way *g* extended into the compartment *e* and provided with side walls *h* and *i*, a gate *j* pivoted to the wall *h* and provided with a projection *l* to
10 act as a stop limiting the amplitude of oscillation of the gate, a plurality of numbered open-ended stalls in the compartment *f* and

a plurality of numbered balls being the same in number as the number of stalls, the gate being arranged to swing closed when the device is tipped in the direction to cause the balls to roll toward the passage-way *g*, substantially as described. 15

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

JOSEPH B. CLEWLEY.

Witnesses:

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