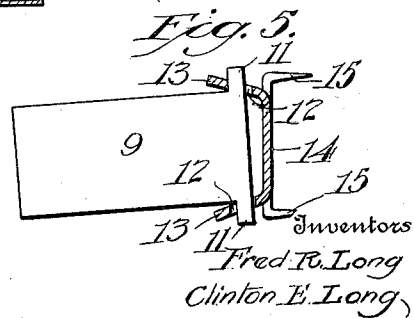
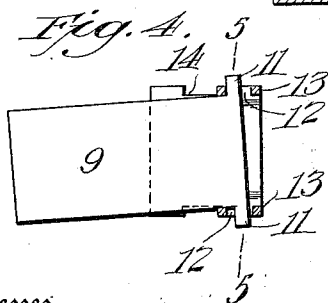
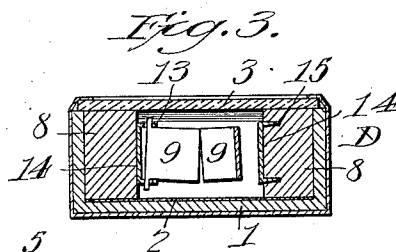
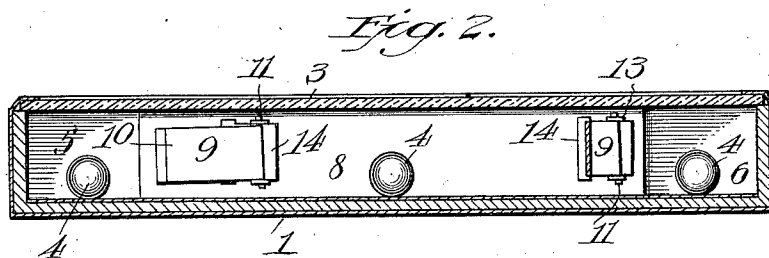
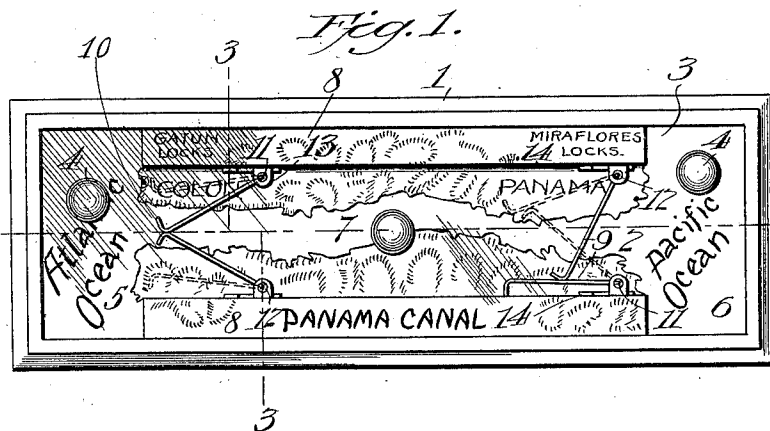


F. R. & C. E. LONG.
PUZZLE.
APPLICATION FILED DEC. 4, 1911.

1,032,290.

Patented July 9, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

FRED R. LONG AND CLINTON E. LONG, OF BERWICK, PENNSYLVANIA.

PUZZLE.

1,032,290.

Specification of Letters Patent.

Patented July 9, 1912.

Application filed December 4, 1911. Serial No. 663,857.

To all whom it may concern:

Be it known that we, FRED R. LONG and CLINTON E. LONG, citizens of the United States, residing at Berwick, in the county of Columbia and State of Pennsylvania, have invented certain new and useful Improvements in Puzzles, of which the following is a specification.

This invention relates to the subject of puzzles and magic, and more particularly to that class of puzzles typifying current events and topics and intended to be instructive as well as amusing.

To this end the present invention contemplates a simple and interesting puzzle embodying a construction which compels the exercise of a considerable degree of patience, skill and care to accomplish the object in view, while at the same time entertaining the operator with a constant impression of the subject or topic which is intended to be popularized by the puzzle.

In its specific application to current events, the present invention provides a puzzle constructed in a manner to simulate or typify a canal, and more particularly presenting in picture and object form the Panama Canal that will connect the Atlantic and Pacific Oceans between the terminal stations of Colon and Panama.

With these and other general objects in view, which will be readily apparent to those familiar with the subject, the invention consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated and claimed.

Though susceptible to structural modification, a preferred and practical embodiment of the invention is shown in the accompanying drawings, in which—

Figure 1 is a plan view of a puzzle constructed in accordance with the present invention, and illustrating one of many positions that may be assumed by the swinging baffle gates and the rolling objects or balls; the dotted lines illustrating other positions that will occur during the manipulation of the puzzle. Fig. 2 is a longitudinal sectional view through the device. Fig. 3 is a transverse sectional view on the line 3—3 of

Fig. 1. Fig. 4 is an enlarged detail elevation showing more plainly the mounting of the individual baffle gates in their supporting brackets. Fig. 5 is a similar view on the line of section 5—5 of Fig. 4, and showing the gate as swung out to a baffling position, that is, to a position which the gate normally tends to seek by reason of its loose pivotal hanging and the inclination of the lower ear of the supporting bracket.

Like references designate corresponding parts in the several figures of the drawings.

The improved puzzle embodies in its general organization an inclosed casing designated in its entirety by the numeral 1 and preferably consisting of a rectangular box of a convenient size which is provided at its bottom with the inner flat playing surface 2 and which is inclosed at the top by a transparent cover plate 3 which exposes to view the entire interior of the casing and its contents. The bottom flat playing surface 2 provides the surface upon which roll the movable objects 4 which preferably consist of small balls or marbles, and are intended to represent ships as a part of the subject typified or simulated in the preferable embodiment of the invention. In this connection it is proposed to provide the playing surface 2 with a pictorial representation or indication of the subject of the puzzle, for instance, as shown, the said playing surface has suitably placed thereon a map representing a canal connecting opposite terminal points, such as the Atlantic and Pacific Oceans between the ports Colon and Panama, thus representing the Panama Canal project.

In carrying out this general subject, the casing 1 includes, within the opposite ends thereof, what may be termed terminal pockets 5 and 6 for the rolling objects or balls, and is also constructed with a single intermediate passageway 7 connecting the said pockets. This passageway is confined between the top and bottom of the casing, and is formed between opposite parallel wall members 8 offset from the inner side of the casing and intended to represent the opposite banks of the canal. The opposite end portions of the connecting passageway 7 are

adapted to be protected by the oppositely located pairs of baffle gates 9 which are so mounted as to freely and easily swing, and the gates of each pair, when in contact in any position, form a baffle across the passageway that obstructs the passage of the balls 4 in one direction. It will be observed that the baffle gates 9 open in the same direction and also close in the same direction, so that if one or more of the rolling objects representing the ships should pass through one pair of the gates toward for instance the Pacific Ocean terminal, the other pair of gates would have a tendency to close, thus preventing the complete passage of the objects, while a tilting of the casing to cause movement of the objects in the opposite direction would tend to open up the gates. Hence, great skill and patience, as well as considerable care, must be exercised to manipulate the casing by tilting and shaking so as to successively open both pairs of gates to permit the passage of the objects from one terminal pocket to another.

The particular mounting of the gates contributes very materially to the difficulty of preventing the objects from all being carried through from one terminal pocket to the other. That is to say, each gate 9 of each pair of such gates preferably consists of a flat sheet metal plate having its free edge bent to form a terminal guard flange 10, and at its other edge provided with pivot points 11 adapted to loosely engage in enlarged bearing holes 12 formed in the upper and lower pivot ears 13 projecting laterally from a sheet metal supporting bracket 14 that is secured by any suitable means such as by the spurs 15 to the inner face of the wall member 8. The pivot ears 13 are inclined so that in whichever position applied, each bracket 14 will present a lower ear 13 that inclines downwardly, and the inner lower corner of the gate 9 resting thereon consequently has a tendency to cause the gate to automatically swing across the passageway 7. Furthermore, the large holes 12 and the small pivots 11 cause the pivot axis of each gate to be inclined from the perpendicular, thus giving to the same a normal tendency to close. The gates 9 are of such length that the flanged ends 10 thereof easily ride against each other and prevent the individual gates from swinging past center, in other words providing means whereby all of the gates always project beyond one side of their pivots and in the same direction, and will close together in various positions as indicated in Fig. 1, although capable, through skilful manipulation, of being so opened as to permit the passage of the rolling objects or balls from one terminal pocket to the other.

From the foregoing description it is to be understood that the device is operated by grasping the casing in the hand and then

carefully tilting the same in various directions, aided possibly by gently shaking or vibrating the same in order to first open the gates and then causing the balls or rolling objects to roll from one terminal pocket through the passageway into the other terminal pocket. In thus manipulating the puzzle, it may happen that one or more of the rolling objects will become entrapped in the passageway, but it will then be the endeavor of the operator to open the obstructing gates and permit the objects to pass without allowing the same to return back past the other gates.

Various changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

We claim:

1. A puzzle comprising an inclosed casing having single terminal pockets, and a single connecting passageway between said pockets, swinging baffle gates having a normal tendency to close the end portions of the passageway, and rolling objects.
2. A puzzle comprising an inclosed casing having single terminal pockets, and a single connecting passageway between said pockets, swinging baffle gates pivotally hung at opposite end portions of the passageway and arranged to both open and close in the same direction, and rolling objects.
3. A puzzle comprising an inclosed casing having terminal pockets, and a connecting passageway between said pockets, separate pairs of movable baffle gates arranged at opposite end portions of the passageway, and rolling objects.
4. A puzzle comprising an inclosed casing having terminal pockets and a connecting passageway between said pockets, separate pairs of movable baffle gates arranged at opposite end portions of the passageway and having a normal tendency to close the latter, and rolling objects.
5. A puzzle comprising an inclosed casing having terminal pockets, and a connecting passageway between said pockets, separate pairs of movable baffle gates located at opposite end portions of the passageway, each of said baffle gates having a pivotal mounting that causes the same to normally tend to move across the passageway, and rolling objects.
6. A puzzle comprising an inclosed casing having terminal pockets and a connecting passageway between said pockets, separate pairs of swinging baffle gates pivotally hung at opposite end portions of the passageway and arranged to both open and close in the same direction, and rolling objects.
7. A puzzle comprising an inclosed casing having terminal pockets and a connecting passageway between said pockets, separate

pairs of movable baffle gates arranged at opposite end portions of the passageway, each of said baffle gates being flanged at one end, and at its other end having a loose pivotal
5 mounting that causes the same to normally tend to close, and rolling objects.

In testimony whereof we hereunto affix

our signatures in the presence of two witnesses.

FRED R. LONG.
CLINTON E. LONG.

Witnesses:

L. S. JACOBY,
GERTRUDE CRYDER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."