



# UNITED STATES PATENT OFFICE.

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## PUZZLE.

SPECIFICATION forming part of Letters Patent No. 733,886, dated July 14, 1903.

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*To all whom it may concern:*

Be it known that I, ANDREW HARMON WALLACE, watchmaker, of the city of Guelph, in the county of Wellington, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Puzzles, of which the following is the specification.

My invention relates to an improved puzzle; and it consists of a cone-frustum-shaped base having annular upwardly-extending walls and gateways in the walls with turned edges and a central pocket at the apex of the cone-frustum, two balls being designed to be used in the annular spaces formed by the walls and the object of the puzzle being to bring these balls to ascend the slope to the gates and surmount the cone-frustum and bring them into the center pocket, as hereinafter described.

Figure 1 is a perspective view of my improved puzzle. Fig. 2 is a plan view. Fig. 3 is a sectional elevation.

In the drawings like characters of reference indicate corresponding parts in each figure.

A is a cone-frustum-shaped base, which is provided with an outer annular wall  $a$  and a plurality of inner annular walls  $a'$ ,  $a^2$ , and  $a^3$ . The wall  $a'$  is provided with a gateway 1, the wall at the gateway having inwardly-turned edges 1', these edges being designed when a ball is brought into the annular space between the walls  $a'$  and  $a^2$  to prevent it from easily falling back as the ball is being caused to rotate in the annular passage-way, as will hereinafter appear. The wall  $a^2$  is provided with a gateway 2, the wall at the gateway having inturned edges 2', correspondingly formed to the inturned edges 1'. The gateway 2 is substantially diametrically opposite the gateway 1, but necessarily on a higher level; but the gateway may be arranged otherwise, as may be found desirable. The wall  $a^2$  of the central pocket A' has a gateway 3, and

the bottom of the pocket is of a concaved form.

Having described the principal parts involved in my invention, I shall briefly describe the manner of performing the puzzle. It is designed to use two balls B, although a greater number may be used, if desired, it being necessary, however, to use a plurality of balls to make the puzzle interesting. In order to perform the puzzle, the base A has to be canted, so as to bring one ball B through the gateway 1 and then around through the gateway 2 and finally through the gateway 3 into the pocket A'. During the period that the first ball is in the pocket the second ball may be brought into the pocket in a similar manner without shaking the first ball out of the pocket. Of course both balls might be brought to ascend the cone-frustum and annular passage-ways thereon together, if desired; but it is essential that both balls should be brought into the surmounting pocket A' before the puzzle is accomplished. The rules for performing the puzzle may be made as may be desired.

In the construction of the puzzle-board it is essential that the inturned lips be formed at the gateway, as I find it would be almost, if not absolutely, impossible otherwise to perform the puzzle.

What I claim as my invention is—

A puzzle-board comprising a cone-frustum-shaped base having an annular bounding-wall and a central pocket with gateway, and intermediate annular walls forming annular passage-ways, such intermediate walls having gateways and the walls at the gateways being provided with inturned edges as and for the purpose specified.

ANDREW HARMON WALLACE.

Witnesses:

W. W. RICHARDSON,  
F. C. BAKER.