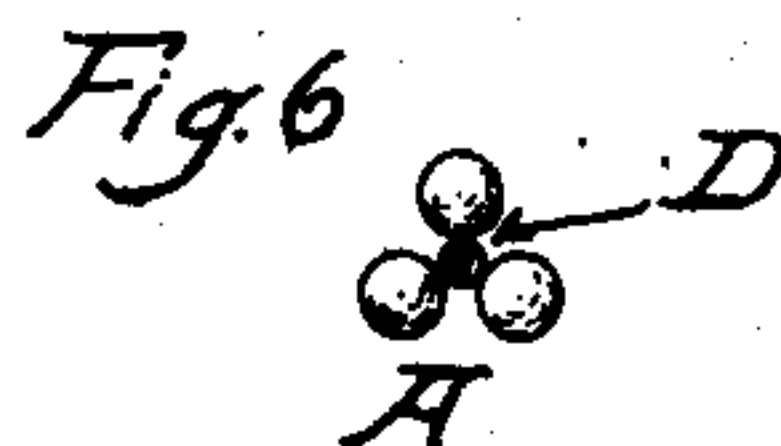
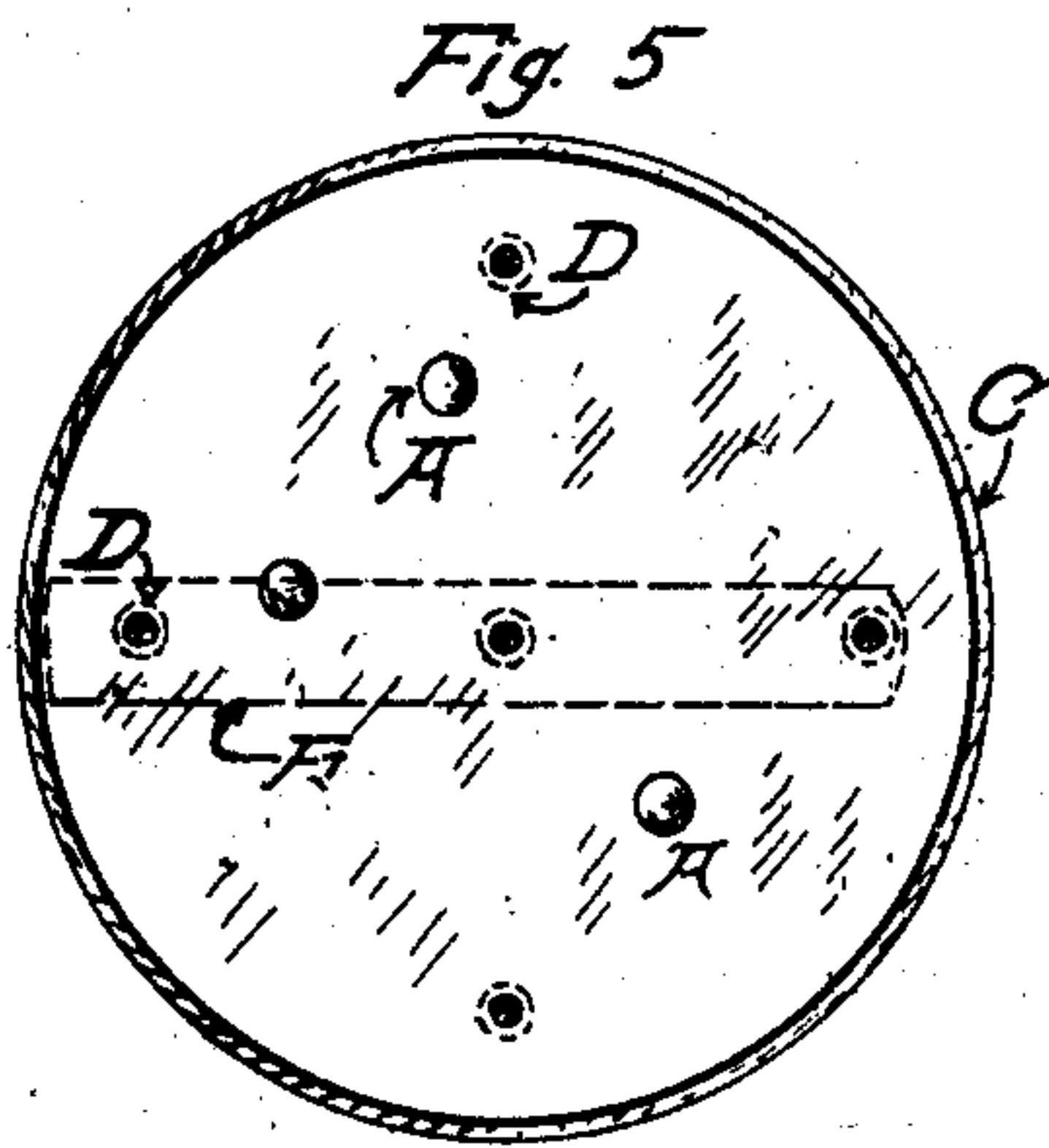
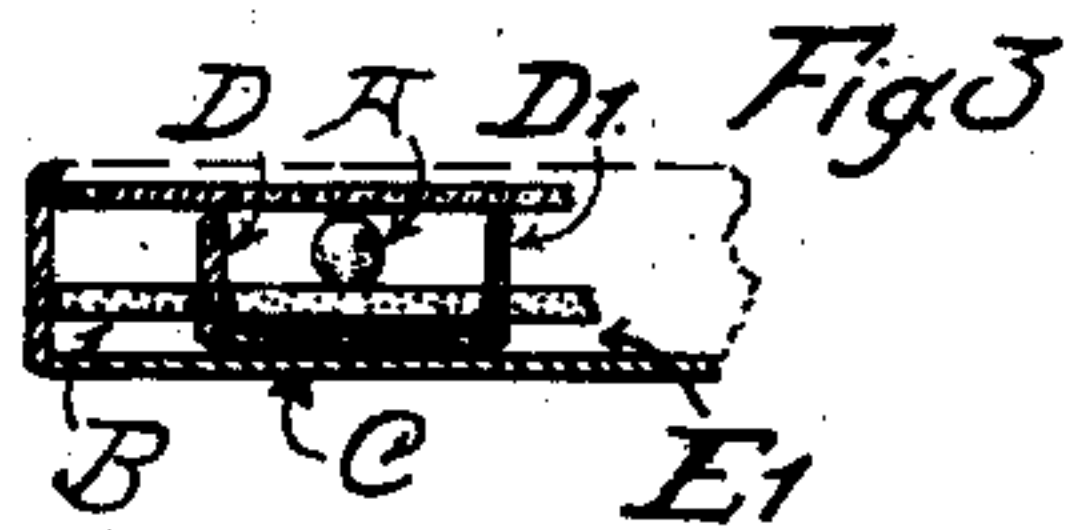
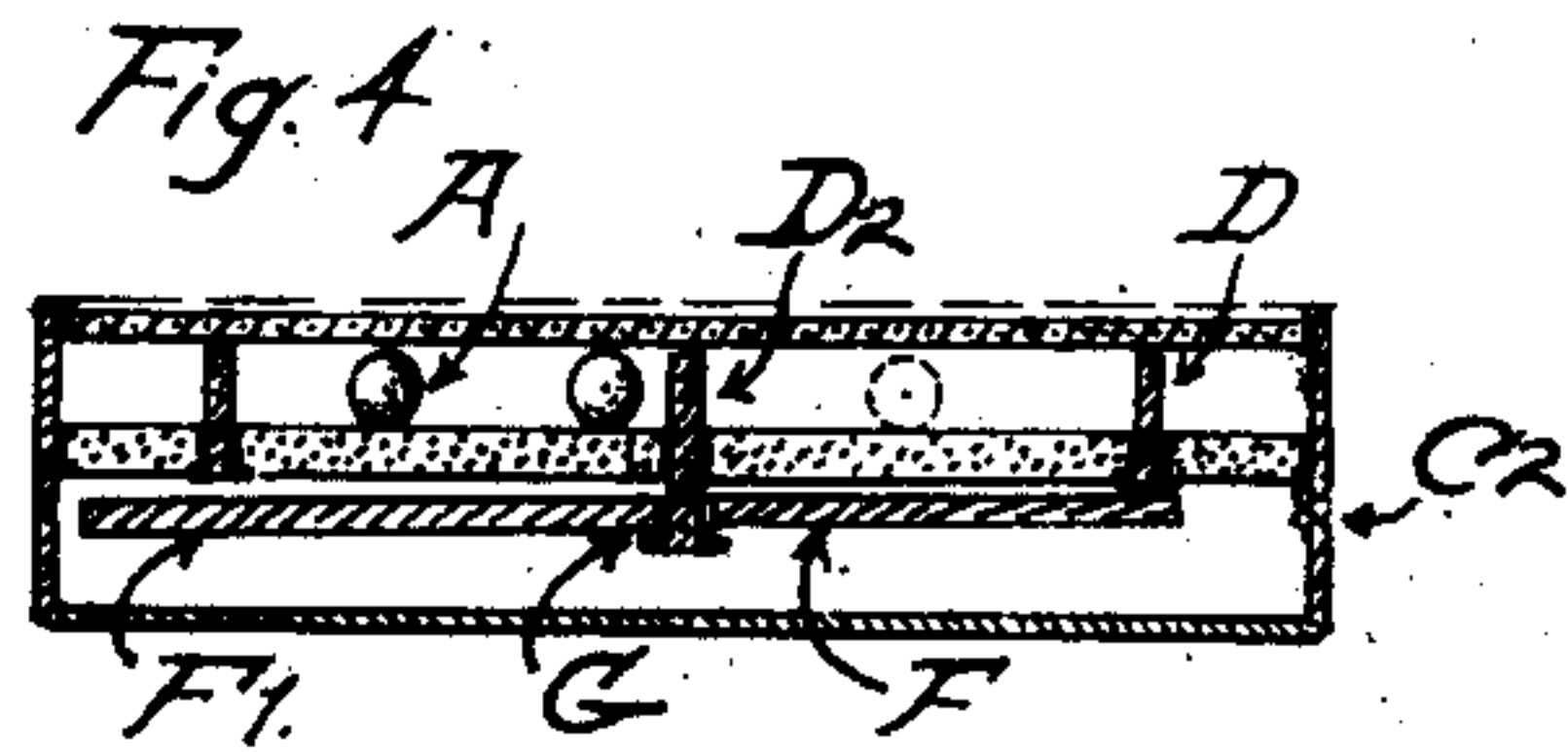
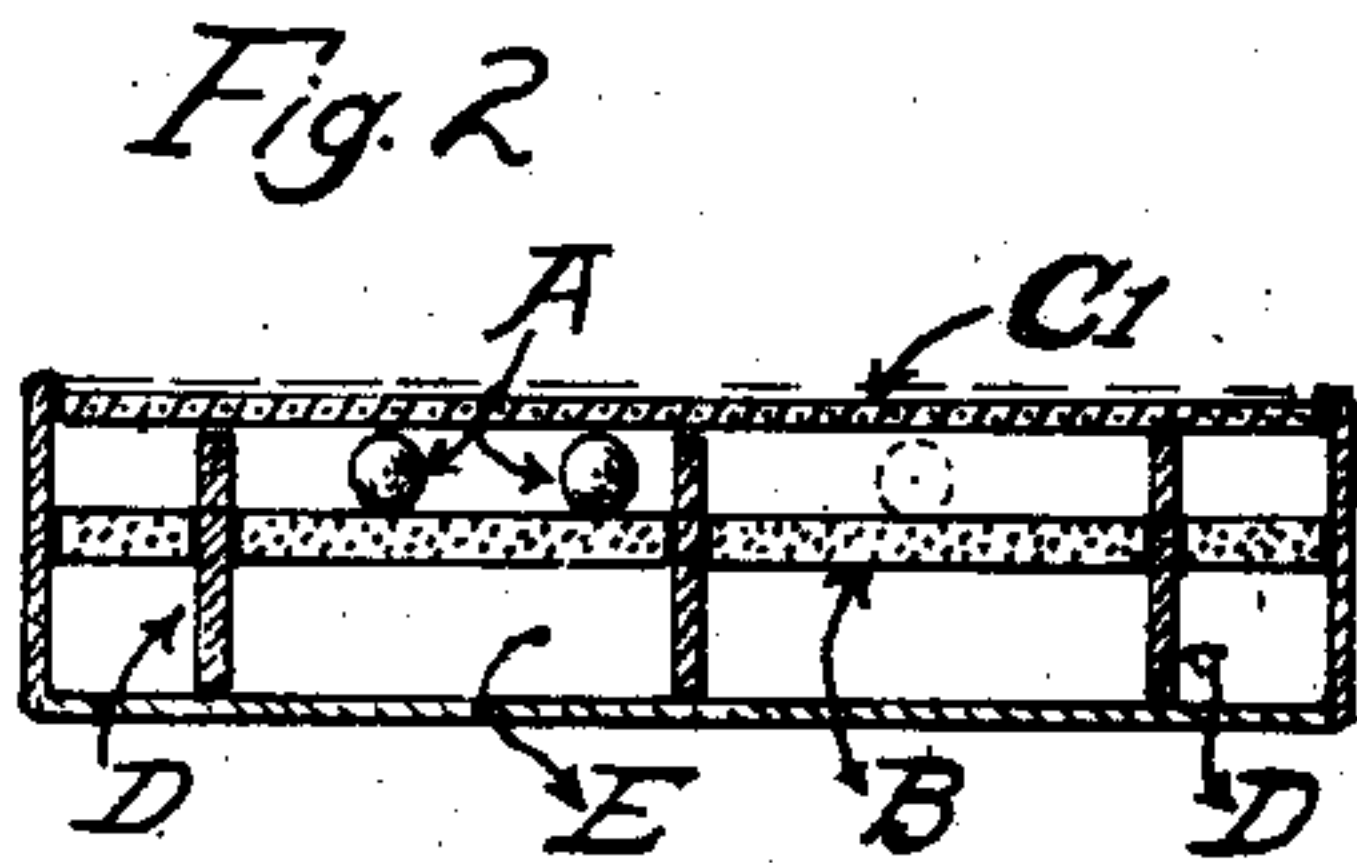
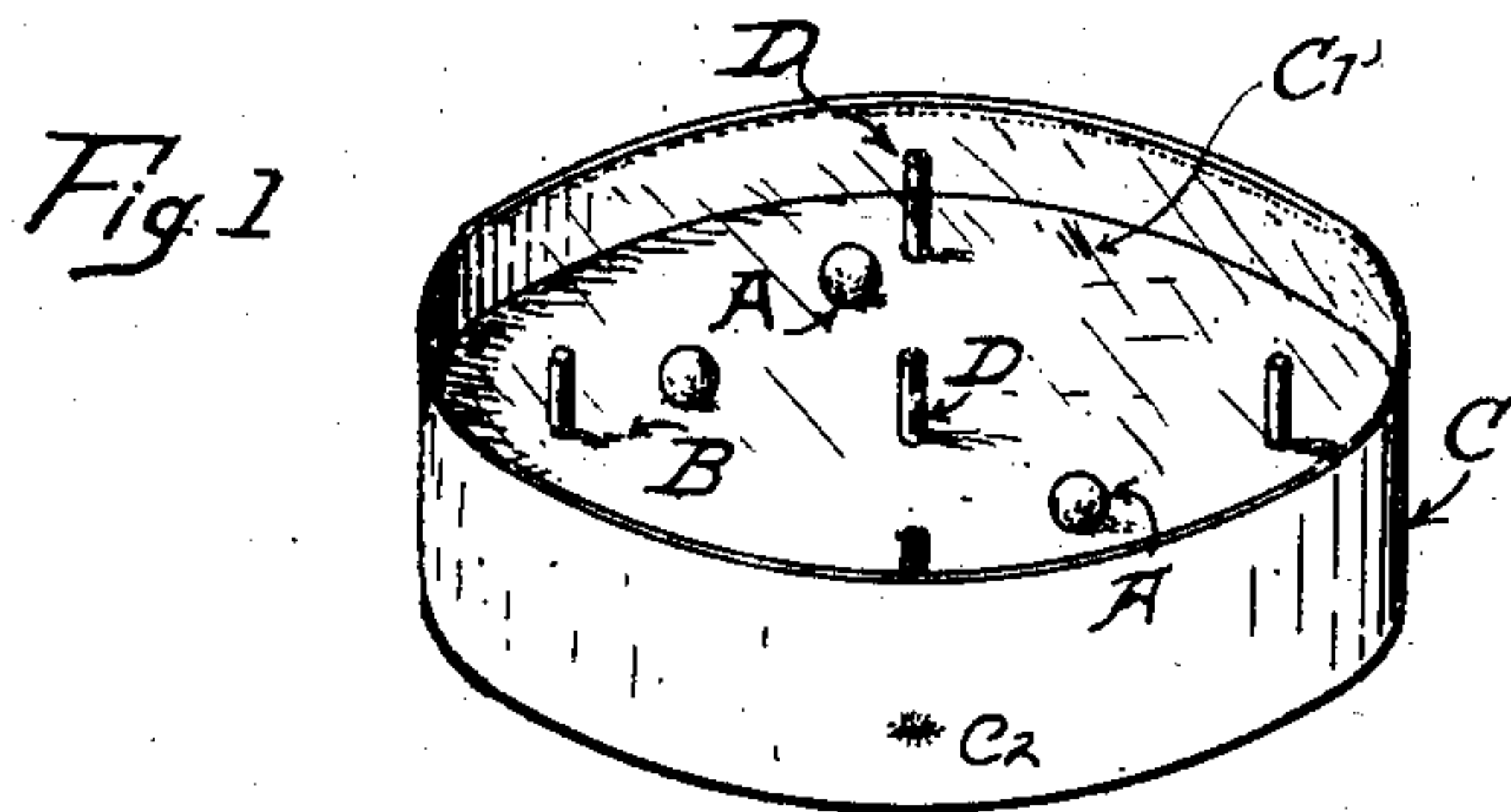


P. G. WATMOUGH, JR.  
PUZZLE AMUSEMENT DEVICE.  
APPLICATION FILED JAN. 9, 1908.

906,971.

Patented Dec. 15, 1908.



Witnesses  
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# UNITED STATES PATENT OFFICE.

PENDLETON G. WATMOUGH, JR., OF NEW YORK, N. Y.

## PUZZLE AMUSEMENT DEVICE.

No. 906,971.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed January 9, 1908. Serial No. 409,958.

*To all whom it may concern:*

Be it known that I, PENDLETON G. WATMOUGH, Jr., a citizen of the United States, and resident of the borough of Richmond, in the county of Richmond and State of New York, have invented certain new and useful Improvements in Puzzle Amusement Devices, of which the following is a specification.

My present invention relates to an amusement device or puzzle.

The nature, objects and novel features of my invention will be more fully understood by reference to the following specification, taken in conjunction with the accompanying drawings forming a part thereof, and with the claims hereinafter appended.

In the drawings, which show several preferred forms of construction, like parts are designated by similar letters.

Figure 1, shows a general perspective view of a particular form of my device as actually constructed. Fig. 2 is a sectionalized elevation taken through the center plane of the device. Figs. 3 and 4 show modified forms of Fig. 2. Fig. 5 is a plan view, relating more particularly to the construction shown in Fig. 4. Fig. 6 represents a plan view of a preferred placing of the balls around a certain one of the magnetized parts.

In Fig. 1, A, designates one of three balls shown, supported by and free to roll on the deck B, the latter preferably being composed of smooth cardboard. C, is a retaining case with a glass cover C<sup>1</sup> forming part thereof. The arrangement of parts is shown more clearly in Fig. 2. D, D, are magnetized steel pins extending through holes in the cardboard, which thus serves to retain said pins in correct position and is in turn supported by them due to the friction of the pins against the cardboard. Or the cardboard may be supported on indentations in the casing as shown at C<sup>2</sup> Fig. 4 or by any other simple means. In order that the pins D, D, may retain the desired magnetic strength it is necessary to use a steel wire, such material, as is well known, possessing retentive qualities in regard to magnetism; furthermore, I have found that it is necessary to give the pins considerable length as compared with the vertical dimensions of the device otherwise necessary for the accommodation of the deck, the balls and the retaining case, thus producing a bulky and unduly large apparatus due to the unused space E, Fig. 2. In

order to minimize this space, I adopt the scheme indicated in Fig. 3, wherein the pins D, D<sup>1</sup>, are of one piece of wire bent into a U or staple shape, which arrangement allows closing up the space E<sup>1</sup> without reduction in the length of the pin, thus producing a small compact device.

Fig. 4 shows still another method of securing the desired magnetization of the pins, which is effected through the inductive influence received from the steel bar magnet F. With this arrangement both pins and balls should preferably be composed of soft iron which while strongly responsive to magnetic influence when directly subjected thereto readily loses said magnetism when the influence is removed, which feature is an advantage in the operation of my device as hereinafter pointed out. The magnet F is shown eccentrically and loosely pivoted at the bearing G, formed by the extension of the center pin D<sup>2</sup>, the latter being provided with a head or expansion which serves as the bearing G referred to. The advantage of this arrangement is that the magnetism may readily be transferred from one pin to another or may be made relatively stronger in one pin or set of pins as distinguished from the others by shifting the permanent magnet F into various positions about its pivot G. This shifting of the magnet is accomplished either by jarring the box or by tilting it more or less on edge so as to permit the longer end of the magnet to gravitate downwards to the desired extent, whereupon returning the box to its original horizontal position holds the magnet more or less stationary in the new position. The magnet acts to induce magnetism in those pins which happen to be over or near its poles.

In operating my invention it is held in an approximately horizontal position, and tilted or adjusted so as to shift the balls A, and arrange them in some desired relation, one example of which is illustrated in Fig. 6 where the three balls are shown clustered around a certain one of the posts D. Said arrangement is difficult to attain, but is rendered possible because of the slight magnetic attraction existing between the balls and the post. Furthermore, owing to the magnetism, the balls have an amusing way of clinging and spinning around one post or the other which feature provides considerable entertainment. In that form of my apparatus which utilizes a rotatable magnet, additional interest and en-



tertainment may be afforded when one knows the trick of shifting the magnetism from one set of posts to another, by altering the position of the magnet with respect to the posts, in a manner described above. It is obvious that other arrangements of the balls may be sought after, without in any way affecting the basis of my invention. It will also be apparent to those familiar with magnetic phenomena, that the same clinging tendency between balls and posts as described above, may be obtained by magnetizing steel balls and placing them in combination with soft iron pins and a retaining case. I do not consider this method entirely satisfactory, however, as the balls strongly cling to each other and thus are unable to freely roll which feature greatly detracts from the entertainment otherwise furnished by the elusiveness of the balls.

Obviously my invention may be embodied in widely varying forms and in different combinations without departing from the fundamental principles involved; therefore without limiting the invention to the devices shown and described and without enumerating equivalents,

I claim as new, and desire to secure by Letters Patent the following:—

1. A puzzle device, comprising a plurality of balls of magnetic material, a platform upon which said balls roll, retaining walls about said platform, and a magnetized pin projecting uprightly from said platform.
2. A puzzle device, comprising a plurality

of balls of magnetic material, a platform upon which said balls roll, retaining walls about said platform, and a magnetized U-shaped pin, the limbs of which project uprightly from the under-side of the platform through and above said platform.

3. A puzzle device, comprising a plurality of balls of magnetic material, a platform upon which said balls roll, retaining walls about said platform, a magnet pivoted to swing next the underside of said platform, and a pin of magnetic material projecting from the upper side of the platform and located to be over a pole of the aforesaid magnet when same is swung for this purpose about its pivot.

4. A puzzle device, comprising a plurality of balls of magnetic material, a platform upon which said balls roll, retaining walls about said platform, a bar magnet mounted to swing next the underside of the platform about a pivot located nearer one end of the magnet and adapted to cause the magnet to assume a normal position, and a pin of magnetic material projecting from the upper side of the platform and located to be over a pole of the aforesaid magnet when same is swung for this purpose about its pivot.

Signed at New York city in the county of New York and State of New York this sixth day of January A. D. 1908.

PENDLETON G. WATMOUGH, JR.

Witnesses:

F. W. WENGEMOTH,  
EMMA D. MILLS.