Aug. 2, 1938. G. L. ROWELL 2,125,815

WHIRLING TOY

Filed Aug. 25, 1937

Fig. 1.

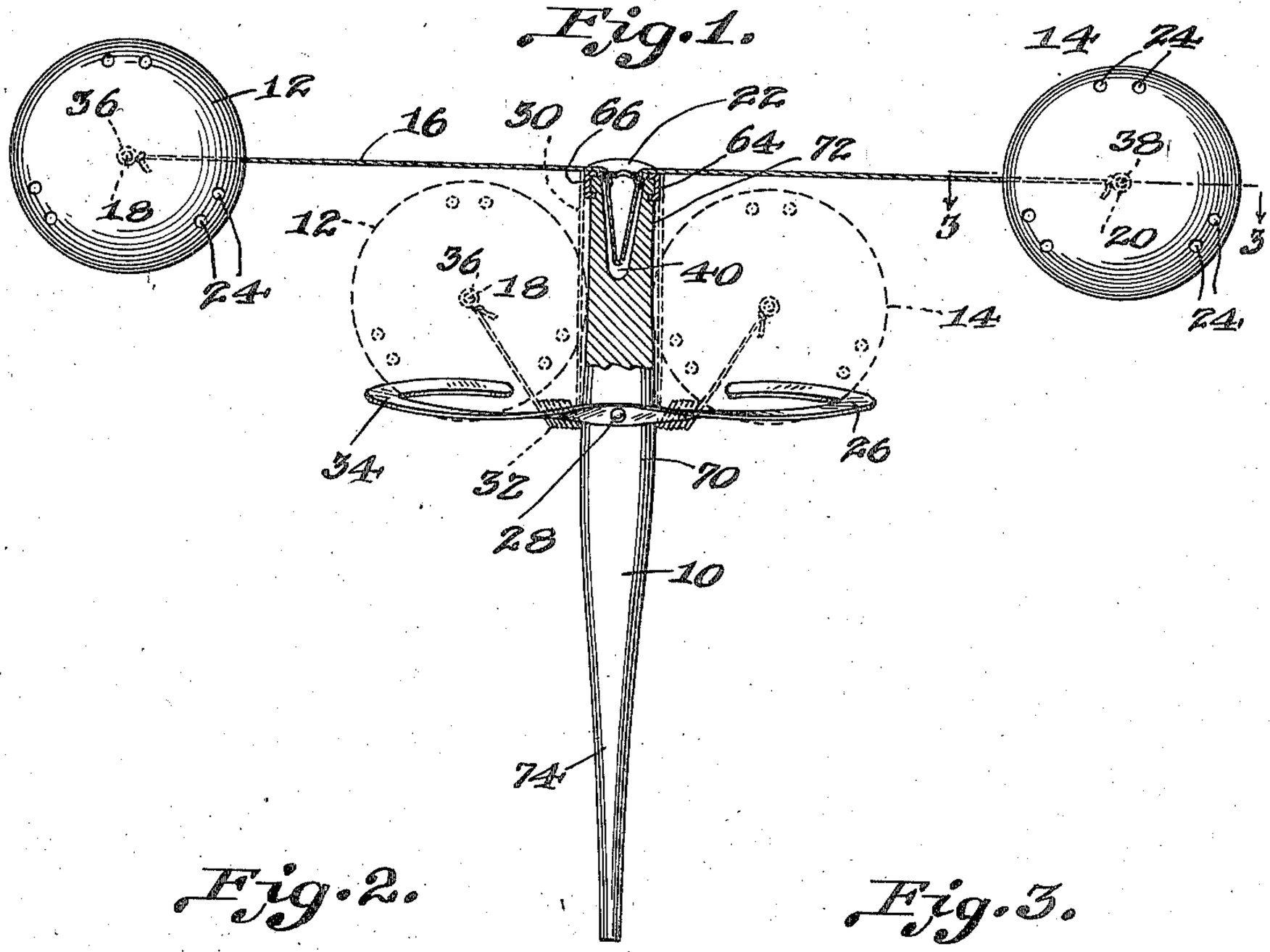


Fig. 2.

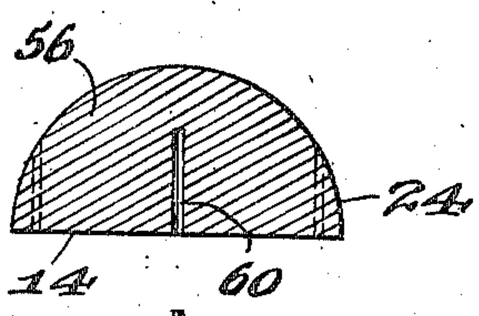


Fig. 3.

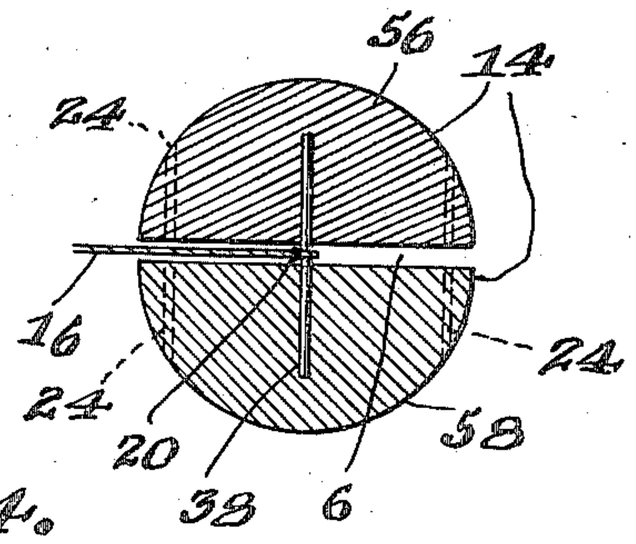
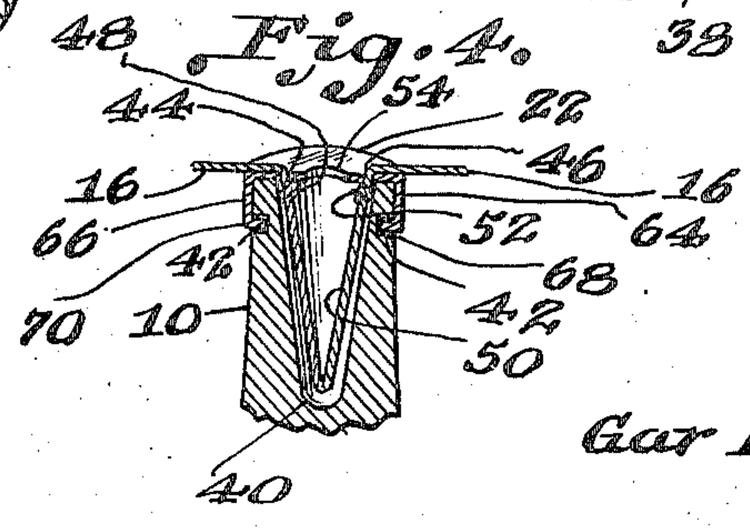


Fig. 4.



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UNITED STATES PATENT OFFICE

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WHIRLING TOY

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Application August 25, 1937, Serial No. 160,925

3 Claims. (Cl. 46—52)

This invention relates to toys and more particularly to toys of the twin ball type.

One object of this invention is to provide a new and improved toy of the twin ball type. Other objects are: to provide a toy which is capable of creating optical illusions; to provide a toy having scientific value for teaching facts about inertia, orbits and optics, etc.; to provide a toy of the type described requiring a certain amount of skill; to provide such a toy which can be readily assembled in a small space when not in use; to provide a toy which can create a pleasant whistling sound; to provide a toy of the two ball type having spaced points of securement; to provide a construction whereby the rotatable parts of the toy will not interfere with each other or have their lines tangled; to provide a toy which may be readily taken apart; and to provide a toy of the type described having improved detail features of construction. Other objects and advantages of this invention will appear in the following specification when considered in connection with the accompanying drawing.

In the drawing wherein like parts have corresponding numerals in the various figures, Fig. 1 is an elevation partly in section and partly in perspective. Fig. 2 is a detail of one of the ball devices. Fig. 3 is a figure showing the detail parts in assembled relation and taken on the line 3—3 in Fig. 1. Fig. 4 is an enlarged detail of a means for securing the cord to the handle.

The foregoing objects have been attained by providing a toy of the two ball type fastened at the opposite ends of a single cord and having the latter secured to a handle in such a manner that the points of securement will be spaced and will not interfere with each other.

The toy comprises a handle 10, two ball members 12 and 14 and a single cord 16 secured to the ball members at the points 18 and 20 and fastened to the shaft 10 by the cap member 22. Each of the ball members is provided with one or more whistling devices 24. The handle may if desired be provided with ball rests 26, 34, parts 28, 30 and 32 illustrating their use but being unnecessary to the device as herein claimed.

The cord 16 is a single cord being fastened to the axle 36 in the ball 12 at one end and to the axle 38 in the ball 14 at the other end.

The upper end of the shaft 10 contains an axially extending bore hole or recess 40, and a peripherally or circumferentially extending groove 42. The cap 22 is provided with two spaced openings 44 and 46 with the cord 16 extending through the opening 44 and being secured on the inner side of the cap by means of a knot 48. The cord has a free loop 50 and is secured in the cap with another knot 52 inside of the other spaced opening, the cord then extending to the other ball. The center of the cap is provided with a small opening 54 which is in alignment with the longitudinal bore 40.

The devices 12 and 14 are similarly constructed and are made from two hemisphere members 56 and 58. The latter member has secured therein the axle 38 and the former member has a central hole 60 the depth of which is less than the free extent of the axle 38. In this way, when the two hemisphere parts of the sphere are forced together, as in Fig. 3, so that the ball is assembled, a diametral slot 62 will remain in the center between the two hemispheres. The cord 16 having been fastened to the axle 38 by the knot 20 extends through the slot 62 toward the center of the shaft. Air whirling through the slot and about the mouth of each of the whistling means 24 is effective to create a pleasant sound which is interesting and intriguing to children when using the device.

The cap 22 is arranged with resilient side wall portions 64 and 66 which may be substantially continuous or which may be in the form of fingers which terminate in radially or inwardly extending annular flanges 68 and 70. These flanges snap into the groove 42 and are arranged to allow the cap to freely rotate upon the end of the handle. If it is desirable however, the gripping action of these flanges can be varied. The cap may be subjected to greater or lesser degrees of friction so that it will rotate less freely. It may even be arranged to be relatively fixed with respect to the handle. The degree of friction at this point is related to the relative skill required in manipulating the toy.

The arrangement of the whistling devices may be varied so that the different whistling means are capable of producing notes of different pitch. The balls, cap and handle may be provided with differently colored surfaces so as to vary the optical effects which can be obtained with the toy. Furthermore, the ball devices may be made of different materials depending more or less upon the class of persons that will use the toy. Where the toy is primarily for small children the ball devices will preferably be made of relatively soft material and where it is used by others more adept in handling and controlling the device the degree of hardness may be increased. The weight of the balls can also be varied in accomplishing similar results.

The handle 10 has a central zone 70 from which the handle tapers off in both directions having a somewhat smaller diameter in the zone 20 adjacent the point where the cap is fastened, and tapering to a much smaller dimension at the end 74 which is the gripping portion.

In use one ball is preferably held while the other is rotated. Subsequently the other ball is thrown in a counter-direction of rotation to place both balls in operation.

The prevention of the tangling of the cords is dependent to some extent upon the skill of the operator. The utility of the rotatable cap which anchors the cord, is to allow free rotation of both balls around the handle and to a certain extent, prevents the tangling referred to. The free loop 50 is placed within the recess to prevent its interference with the remainder of the cord and is knotted internally but these knots may be untied if desired to somewhat lengthen the string. If the device were sold without any loop it might not occur to an operator to shorten the cord but with the loop already arranged lengthening of the cord would appear to be obvious and very easily adjusted, thus adding somewhat to the complexity of the device. The hole 54 is principally for the object of passing the loop out from the interior of the handle so that the knots may be easily manipulated.

Although the preferred embodiment of this invention has been illustrated and described, variations coming within the true spirit and scope of the same are to be determined by the appended claims.

What I claim is:

1. A toy comprising in combination, a handle having an axially extending recess and a circumferential groove; two devices each having a diametral slot; each device comprising two hemispheres, one having an integral axle and the other having a bore hole of less depth than the free length of said axle; a cord secured at each end to the axle of one of said devices and extending through said slot; whistle means spaced about the periphery of said devices and arranged in communication with said slots; a cap having two diametrally spaced holes and inturned flanges; said cord extending through the holes in said cap, having knotted portions internally abutting the cap, adjacent said holes, with a free loop between the knots and the loop resting in said recess; said flanges engaging said groove.

2. A toy comprising a handle; two devices each having a diametral slot and whistling means in communication with each slot; a single cord secured at each end to a central portion of one of said devices and extending through the slot; and means securing said cord to said handle by a rotatable cap having inturned portions engaging a groove.

3. A toy comprising a handle; two devices each having a diametral slot and whistling means in communication with each slot; a cord secured at each end to a central portion of one of said devices and extending through the slot; and rotating means on the free end of the handle and securing said cord to said handle at spaced points.

GAR LEE ROWELL.