TOY WITH ELASTICALLY-JOINED MAGNETIC PARTS

Charles R. Luchsinger, Glen Cove, N.Y., assignor to The Luchland Company, Newfoundland, N.J., a partnership
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1 Claim. (Cl. 46—241)

ABSTRACT OF THE DISCLOSURE

A toy having two parts joined by an elastic string, one of the parts being a permanent magnet with a cut-out portion and a handle, and the other part being of soft steel or the like and having a spheroidal shape having limited target area.

This invention relates to a toy having two members elastically joined and having ferromagnetic elements to hold them together, but capable of being separated well beyond the influence of any magnetic field between them.

One of the objects of this invention is to produce a toy that requires some manual dexterity in its operation to exert, by means of an elastic cord, a force of the proper direction and magnitude on one member to bring that member close enough to a second member so that the magnetic field of attraction between ferromagnetic elements in the two members will hold them together.

Another object is to form the members so that they fit together with a preferred orientation.

Further objects will become apparent after studying the following specification, together with the drawings, in which:

FIG. 1 shows one embodiment of a toy constructed according to the present invention;
FIG. 2 shows the toy of FIG. 1 with its parts held together in proper orientation; and
FIG. 3 is a cross-sectional view of one part of the toy, showing the position of a permanent magnet therein.

The toy in FIG. 1 comprises a hand-held member 11 having a handle 12 and a shallow, flared cup 13. A tether 14, preferably of elastic material, such as rubber capable of stretching to approximately twice its relaxed length or more, is attached to the member 12, and in the embodiment shown, the tether 14 is attached to the cup 13. At the other end of the tether is a sphere 16 with a hook 17 to which the tether 14 is tied. This sphere may conveniently be made of thin sheet steel so as to be light enough not to stress the tether 14 excessively, preferably stretching it no more than about 25% when the sphere is hanging motionlessly.

Within the cup 13 is a permanent magnet 18 having a concave lower surface 19 for the sphere 16 to fit into. As is shown in FIG. 3, the magnet 18 may be symmetrical with a second concave surface 21 facing in the opposite direction from the surface 19 so that the magnet can be glued or otherwise secured within the cup 13 in either direction. The magnet may be made of one of the Alnico or ferrite materials or any other material having equally suitable permanent magnetic characteristics. The magnet 18 may be magnetized so that the entire surface 19 is a north pole and the entire surface 21 is a south pole, or it may be magnetized so that each of the surfaces 19 and 21 is divided into zones of opposite magnetic polarity. In the latter case, the sphere 16 could more effectively act as a keeper to help retain the magnetism.

The sphere 16 is shown, particularly in FIG. 2, with markings resembling a partially bald head. The marking 22 denotes a fringe of hair around a central bald spot 23, which thus forms a target area. The toy may be used in its simplest way by jiggling the handle 12 to cause the sphere 16 to bounce at the end of its tether 14 in such a way as to come close enough to the cup to be captured by the magnetic field of the magnet 22. The strength of the magnetic field should not be so great in comparison to the mass of the sphere 16 as to cause the sphere to be captured too easily, or the skill factor will be reduced too much to make the operation of the toy interesting. On the other hand, the magnet 18 should exert more than the bare minimum of force required to support the weight of the sphere 16 when the handle 12 is pointing upward.

For a game requiring more skill, different rules may be applied. The player may be allowed to cause the member 11 to capture the sphere 16 in such a way that the cup 14 becomes magnetically attached to a target area, such as the bald spot 23. It is partly for this reason that the hand-held member is shaped so that it resembles a hat, although it will be understood that other types of targets could be used, including, but without limitation, bullseyes and craters of the moon, and that the hand-held member 11 could be shaped to resemble appropriate devices, including, but without limitation, an arrow or a rocket.

Other forms for all of the elements of the toy could be used without departing from the true scope of the invention as determined by the following claims.

What is claimed is:

1. A toy comprising: a first member and a second member, said second member comprising a handle, a cupped receiving portion, and a permanent magnet attached within said cupped receiving portion; a said first member comprising spheroid having ferromagnetic element target area of limited extent; and means comprising an elastic cord resiliently joining said first member to said second member to permit said second member to move freely with respect to said first member.

References Cited

UNITED STATES PATENTS
2,166,115 7/1939 Bach 46—241 X
2,277,057 3/1942 Bergren 273—97
3,166,322 1/1965 Branneman 273—95
3,237,941 3/1966 Vincent 46—241

LOUIS G. MANCENE, Primary Examiner.
F. BARRY SHAY, Examiner.
R. F. CUTTING, Assistant Examiner.