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TOY WITH FREELY MOVABLE ENCLOSED PELLETS

Filed Oct. 15, 1964

3,276,778

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This invention relates to a child's toy having a plurality of freely movable pellets within a container, and of smaller size than the container so as to permit a limited range of free motion along certain prescribed trajectories.

The toy according to the present invention comprises a hollow container, preferably having transparent walls, and a receptacle having an entrance within the container. Several pellets of a size small enough to pass through the entrance are enclosed within the container and are free to move within the confines of the container along a limited range of trajectories, some of which terminate at the entrance to the receptacle. The receptacle may, itself, be a handle and is large enough to accommodate several or all of the pellets at one time.

One of the objects of the present invention is to provide a game of skill, based upon manually imparting ballistic motion to a plurality of enclosed pellets and catching the pellets in a trap of limited size without releasing pellets that were caught previously. Further objects will become apparent from the following specification taken in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of a toy constructed according to the invention; and
FIG. 2 is a cross-sectional view of the toy of FIG. 1 along the line 2-2.

The main portion of the toy in FIG. 1 is a cylindrical and preferably transparent, hollow container 11 having a cylindrical wall 12 and two flat end walls 13 and 14. This container has enclosed within it a plurality of pellets 16 in the form of balls or marbles. These pellets may all be of identical size, as is shown in FIG. 1, or they may be of differing sizes, provided the largest is limited to a size capable of entering other parts of the toy, as will be described hereinafter. Preferably, they are of different colors.

The container 11 is held within a U-shaped clamp 17 by means of interlocking knobs 18 that engage slots 19 in the clamp. The clamp 17 fits snugly around one section of the cylindrical wall 12 so that the container 11 is held firmly and a hollow tube 21, which may be molded as part of the clamp 17, extends through the cylindrical wall 12 in a radial direction so that the end of the tube 21 is well within the container 11. This tube serves as a receptacle for the pellets 16 and therefore the end within the container 11 must be open to at least a size sufficient to admit the pellets. While the end of the tube 21 within the container 11 is shown as extending radially approximately to or just beyond the center of the container 11, it is not necessary that it extend quite so far, nor is it essential that it extend radially into the container. However, by extending radially, the toy is balanced and is easier to hold, and by extending the inner end of the tube 21 beyond the center of the cylindrical container 11 the difficulty of causing the pellets 16 to enter the tube 21 is somewhat increased, which makes the toy more interesting.

The height of the cylindrical container 11 is at least slightly greater than the diameter of one of the pellets 16, or balls, so that these pellets are free to move within the space in the container in such a way as to be entirely away from contact with any of the walls, either the cylindrical wall 12 or the two flat end walls 13 and 14. Preferably the height of the cylindrical wall 12 should be great enough to permit the end surfaces of the walls 13 and 14 to clear the outer surface of that portion of the tube 21 that extends into the container 11 as is shown in FIG. 2.

The purpose of the toy is to increase the manual dexterity of the person using it. The object of the toy is to cause the pellets 16 to move along trajectories that lead to the entrance at the inner end of the tube 21. In FIG. 1 all of the pellets are indicated as being in motion. They are placed in motion by jiggling or moving the toy along certain paths. These paths are rather easily detected by observing the motion of the pellets 16. The user may determine the type of motion most likely to cause one of the pellets 16 to follow a trajectory that will lead to the open end of the tube 21. The difficulty may be further increased for those interested in doing so by specifying that a particular order is to be followed in transferring the pellets from the container 11 to the tube 21. For example, one of the pellets 16a may be differently colored than the other pellets and the toy may be used in a game having as one of its rules the requirement that this pellet 16a be the first one to enter the tube 21. Alternatively, the pellet 16a may be required to enter the tube 21 last or at some selected intermediate stage.

The toy may also be used in a game to be played by several players, each having a toy similar to the one shown, and the game being played with the object of being the first to transfer all of the pellets from the container 11 into the receptacle 21. Various modifications of these games may also be played.

While the invention has been described in terms of specific embodiment, it will be recognized by those skilled in the art that other embodiments may be made without departing from the true scope of the invention as defined by the following claims.

What is claimed is:
1. A toy comprising: a plurality of pellets; a closed container holding said pellets and permitting free movement of said pellets away from contact with said container along a limited range of trajectories, said container comprising a short cylinder having a height much smaller than its radius and having transparent ends; and a hollow receptacle attached to said container and extending through the cylindrical wall thereof, said receptacle comprising a hollow tube having an internal cross-sectional area less than said pellets and having an open entrance large enough to permit said pellets to enter said receptacle and an inner length long enough to hold all of said pellets simultaneously, said receptacle also extending outside of said cylindrical wall to serve as a handle for said toy, said entrance facing the interior of said container and being spaced from said cylindrical wall, whereby jiggling said container will cause said pellets to move along said trajectories, certain ones of which lead to said entrance.
2. A toy comprising: a plurality of pellets; a closed transparent container holding said pellets and permitting free movement of said pellets away from contact with the inner surface of said container along a limited range of trajectories, said container comprising a short cylinder having flat ends, the diameter of said cylinder being greater than the height thereof; and a hollow tubular receptacle rigidly attached to said container and extending through the cylindrical wall thereof, said receptacle having an open entrance large enough to permit said pellets to enter said receptacle and a large enough interior to hold all of said pellets simultaneously, said entrance facing the interior of said container and being spaced from said cylindrical wall, whereby moving said container will place said pellets in ballistic motion with respect thereto along said trajectories, certain ones of which lead
to said entrance, said receptacle having a closed end outside of said cylinder to serve as a handle for said toy.

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