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E. C. HANSON  
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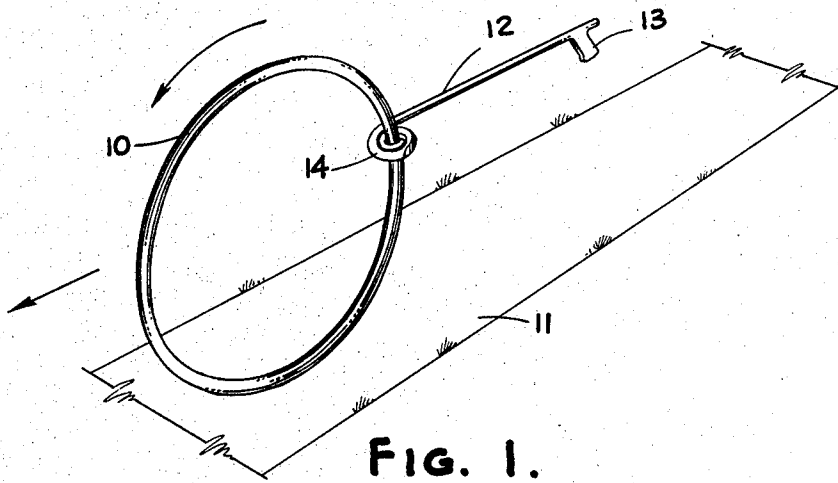


FIG. 1.

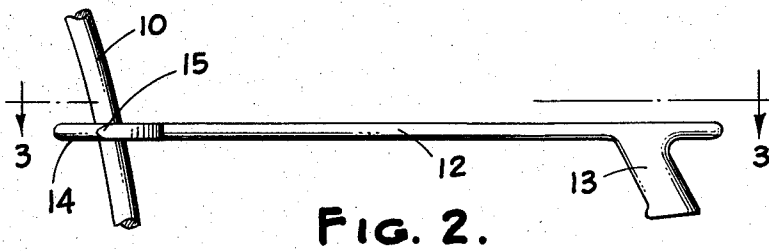


FIG. 2.

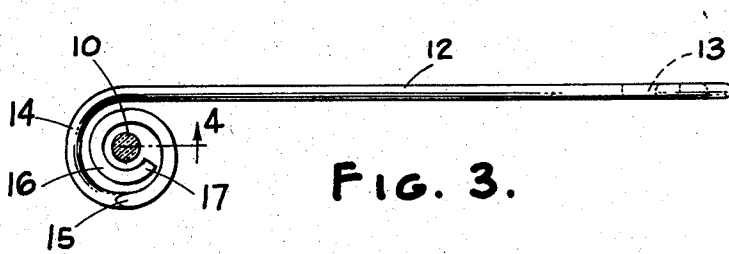


FIG. 3.

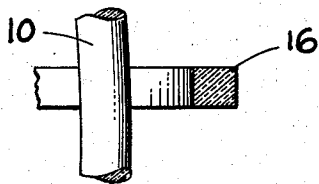


FIG. 4.

INVENTOR.  
ELBIN C. HANSON  
BY *Elliott & Pastoriza*  
ATTORNEYS.

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TOY AND STICK

Elbin C. Hanson, P.O. Box 452, Rte. 4, Escondido, Calif.

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2 Claims. (Cl. 46—220)

This invention relates generally to toys and more particularly to a handling stick for use with play hoops.

Play hoops generally in the form of a circular closed member of perhaps three to four feet in diameter have enjoyed considerable success for several decades as a toy. The hoops themselves easily roll along the ground and will stay upright while in motion by gyroscopic action. In the past, it has been the practice for children to roll these hoops along the ground utilizing a stick or the like for applying impulse energy to the hoop at intermittent intervals to keep it rolling. The child runs along beside the hoop and in this way is well exercised. More recently, these hoops have been swung around parts of the child's body as an amusement device. In this latter use they are often referred to as "hula hoops."

The use of the hoop as a rolling member along the ground is still a popular type of play for children, but in recent years has been limited largely as a consequence of crowded conditions in cities and the greatly increased number of automobiles. Serious accidents can occur if the hoop escapes from a child and rolls into the street. In addition, employing the hoop as a rolling object and attempting to control it with a simple stick or the like does not provide a reliable degree of control over the hoop and thus the various activities that can be carried on with the hoop are somewhat limited.

Bearing the foregoing in mind, it is a primary object of the present invention to provide an improved handling stick for use with hoops of the "hula" type to the end that the same may be rolled along the ground and yet be retained under direct control of the child.

More particularly, it is an object to provide a novel hoop and handle stick combination wherein the hoop is coupled to one end of the stick in such a manner that it cannot escape from under control of the child using the stick and yet may freely roll along the ground or even a floor inside of a house.

Briefly, these and other objects and advantages of this invention are attained by providing a handling stick including an elongated shaft portion. This shaft portion terminates at one end in a simple gripping handle for holding by the child and in the other end, in a resilient coupling means preferably in the form of a spiral configuration for receiving the hoop. The arrangement is such that the hoop may be intercoupled with the spiral end of the stick shaft very easily and yet the spiral structure insures retainment of the hoop in coupled relationship with the stick while permitting the hoop to be readily rolled about.

A better understanding of the invention will be had by referring to the accompanying drawings illustrating a preferred embodiment thereof in which:

Figure 1 is an overall perspective view showing a hoop and the improved handling stick therefor;

Figure 2 is a side elevational view of the handling stick of Figure 1;

Figure 3 is a top plan view of the handling stick taken

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in the direction of the arrows 3—3 of Figure 2; and, Figure 4 is a cross section of one of the spiral turns taken in the direction of the arrow.

Referring first to Figure 1, there is shown a conventional rolling or play hoop 10 illustrated in motion by the circular arrow along a pavement 11. Cooperating with the hoop 10 is a handling stick including a shaft portion 12 terminating at the far end as shown in Figure 1 in a pistol grip handle 13 and at its near end as viewed in Figure 1 in a spiral structure 14 encircling a portion of the hoop 10.

Referring to the detailed elevational view of Figure 2, it will be noted that the pistol grip handle 13 extends downwardly and slightly rearwardly to enable a person to readily grip the stick with one hand. This handle normally lies in a substantially vertical plane including the straight shaft portion 12.

The other end of the stick terminating in the spiral 14 is shown in Figure 2 as encircling a portion of the hoop 10 and it will be noted that the plane of the spiral 14 is substantially horizontal and also includes the straight shaft portion 12. Thus, the plane of the pistol grip handle and the plane of the spiral are at right angles to each other.

Referring to Figure 3, it will be noted that the hoop 10 shown in cross section fits relatively loosely within the innermost spiral. The spiral itself extends over 360° and changes from a circular to a square cross section at the point 15 so that its innermost turns 16 and 17 are square in cross section. Thus, as will be evident from Figure 4, the inner surfaces of the innermost spiral 16 make a line contact with the hoop 10 providing an improved degree of control over the hoop. The area defined by this innermost turn is greater than the cross sectional area of the hoop portion passing therethrough so that a loose coupling is provided. The entire shaft 12 and outer spiral turns could be of square cross section if desired.

The material of the handling stick is preferably resilient in nature and may be made out of a single integral tube or square rod of plastic suitably curled and sufficiently resilient such that the hoop may be worked into the initial portions of the spiral until it is within the innermost spiral as shown in Figure 3. By this structure no auxiliary hooks or hinged portions are required for enclosing a portion of the hoop as the material of the handling stick may be flexed sufficiently to receive the hoop. Moreover, the provision of at least one and one-half to two spiral turns as indicated at 14 and 16 will ensure against the hoop accidentally becoming disengaged from the spiral.

In the operation of the toy as described, the hoop is worked into the innermost spiral turn as shown in Figure 3 and the handle 13 gripped by a user. The user or child may then run along the pavement 11 shown in Figure 1 and the hoop will roll along as indicated by the arrow. The gyroscopic properties of the hoop will tend to keep it upright and since it fits loosely within the inner spiral 16 of the spiral end of the shaft, there will be very little friction exerted at this point. On the other hand, small nudges by the handling stick will maintain the rolling hoop 10 in motion and on a desired course. Moreover, inasmuch as the hoop is retained within the spiral, there is no possibility of the same escaping from under control of the user, and thus the device is relatively safe notwithstanding crowded traffic conditions.

Minor modifications that fall clearly within the scope of the present invention will occur to those skilled in the art. The handling stick and hoop are, therefore, not to be thought of as limited to the exact embodiment set forth merely for illustrative purposes.

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What is claimed is:

1. A handling stick for use with a play hoop, comprising: a straight shaft portion terminating at one end in a downwardly extending handle lying substantially in a first plane including said shaft portion, the other end of said shaft portion terminating in a spiral lying in a second plane including said shaft portion at right angles to said first plane, said spiral being resiliently deformable and extending over more than 360°, the last inner spiral portion thereof defining an area larger than the cross sectional area of a portion of said hoop, and at least a portion thereof being square in cross section whereby said hoop may be moved between turns of the spiral to be received and loosely held within said inner spiral portion.

2. A handling stick for use with a play hoop, comprising: a straight shaft terminating at one end in a handle and at its other end in a resiliently deformable spiral, the turns of said spiral all lying in a single plane and the in-

nermost turn thereof defining a central area larger than the cross sectional area of a portion of said hoop, the remaining turns of said spiral defining an ingress passage to said central area of dimensions smaller than the cross sectional dimension of said portion of said hoop, whereby said turns may be biased to increase the size of said ingress passage to receive said hoop portion into said central area.

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