

[54] **ENDLESS LOOP MANIPULATABLE TO VARIOUS POSITIONS**  
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[51] Int. Cl.<sup>2</sup> .... **A63H 33/00**  
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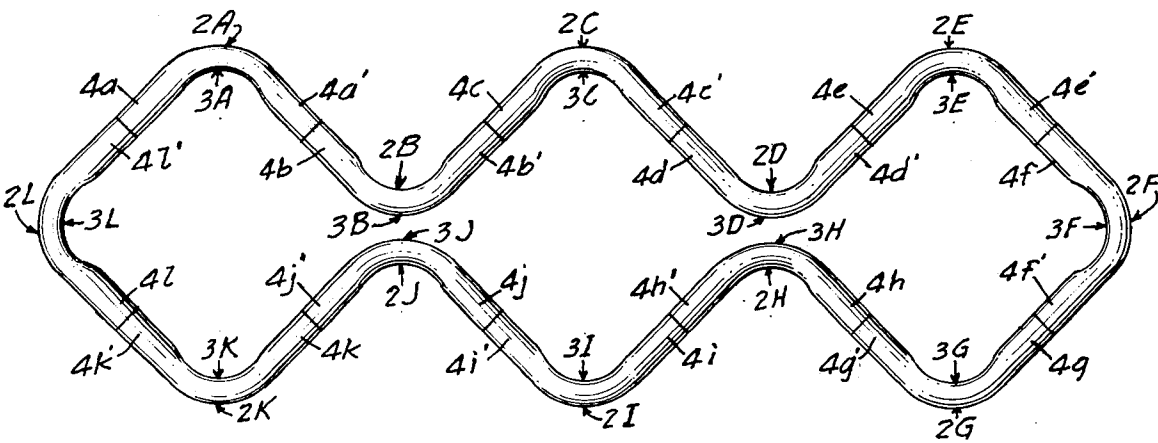
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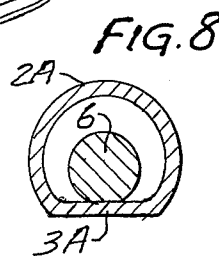
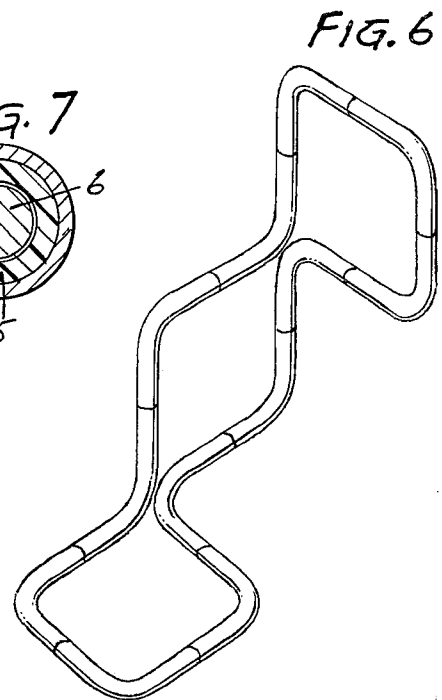
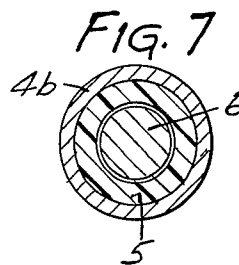
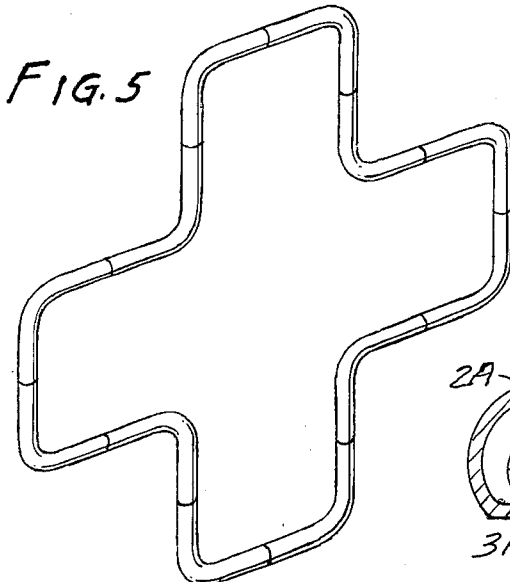
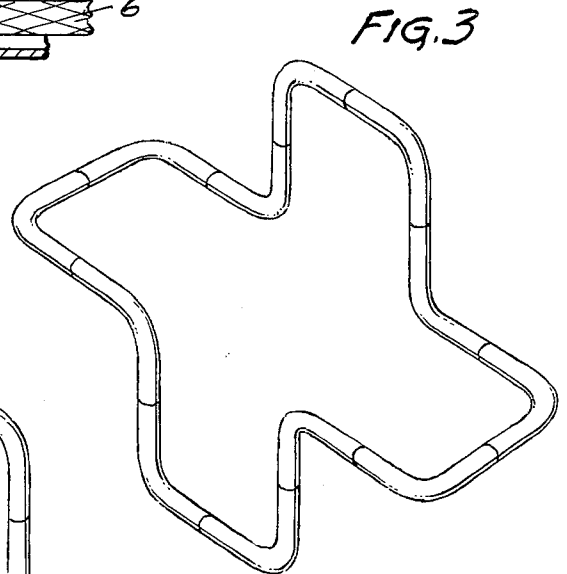
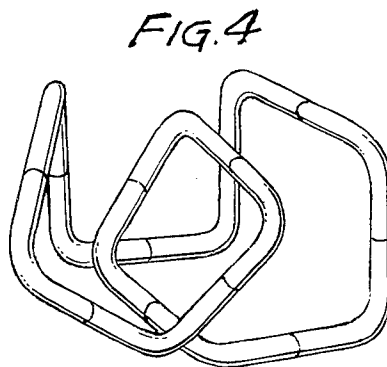
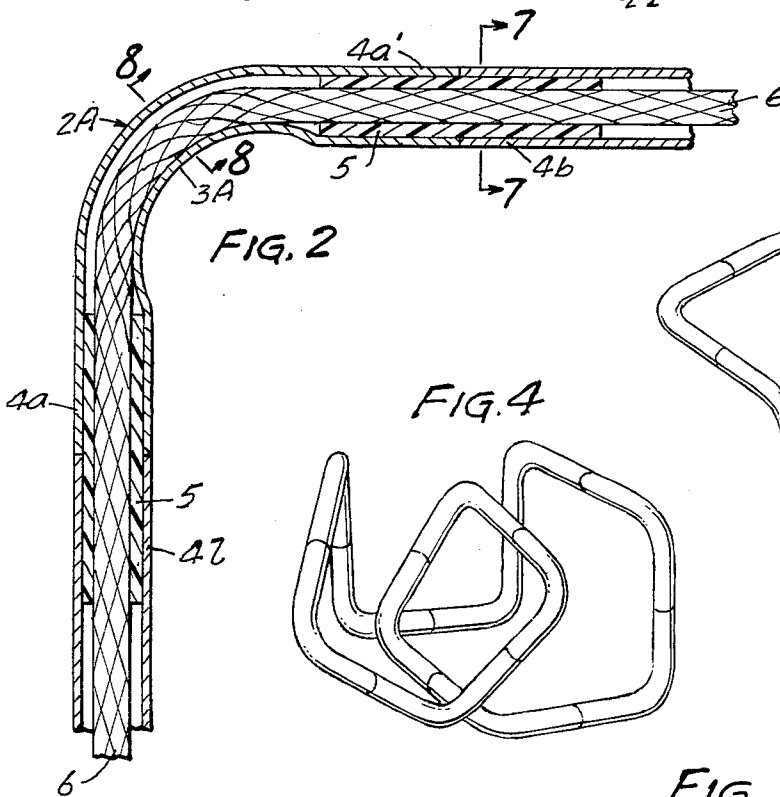
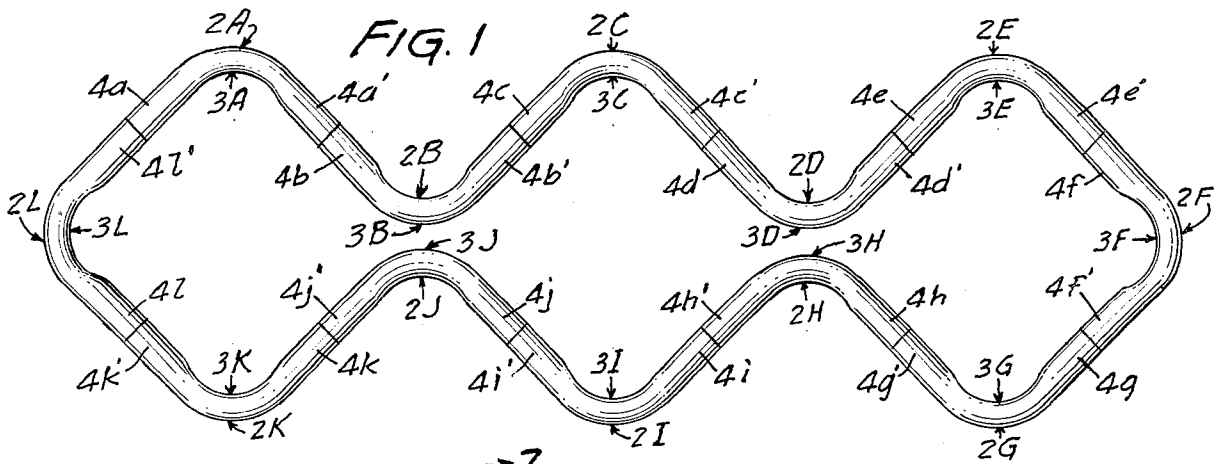
[57] **ABSTRACT**

A toy comprising a plurality of hollow tubular segments, each of which segments is angled. The segments are arranged in abutting end-to-end relationship to form an endless structure. The segments are held together elastically. Each segment is rotatable in respect to abutting segments. The toy is thus capable of being twisted into a large number of different positions.

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**3 Claims, 8 Drawing Figures**





## ENDLESS LOOP MANIPULATABLE TO VARIOUS POSITIONS

This invention relates to a novel toy which may be used for amusement, distraction or relaxation. It may be twisted into a variety of different positions, and offers a challenge to the user to put it into a particular new position.

In the embodiment shown, the toy is made up of 12 hollow tubular segments, each of which is formed with a 90° angle at its midportion. Each segment is held in abutting juxtaposition to adjoining segments by an elastic band, to form an endless structure. Each segment may be twisted, or rotated in respect to adjoining segments; thereby causing the entire structure to assume (depending upon the degree of rotation to which particular segments have been subjected) a variety of different positions.

Referring now to the drawings:

FIG. 1 is a flat, plan view of the toy, in a position in which it forms three diamond shaped units.

FIG. 2 is a central horizontal sectional view of one segment plus a short portion of each adjoining segment, to show the plastic bearing sleeves which serve to connect adjoining segments; said FIG. 2 also showing the elastic material which serves to hold the total number of segments in the toy in abutting juxtaposition.

FIG. 3 is a perspective view of the toy in a cruciform arrangement, but in which one arm of the cross has been turned 90° downwardly; the arm opposed to said first arm has been turned 90° upwardly; and the two remaining arms lie on the same plane as each other extending perpendicularly to the said turned arms.

FIG. 4 is a perspective view of the toy in a tighter, twisted position.

FIG. 5 is a perspective view of the toy in a flat cruciform position.

FIG. 6 is a variant of the view shown in FIG. 1; in which the three diamond shaped unit is maintained but in which said diamond units are not in a flat position.

FIG. 7 is a sectional view, taken along line 7—7 in FIG. 2.

FIG. 8 is a sectional view, taken along line 8—8 in FIG. 2.

Referring now to the drawings in more detail — reference characters 2A through 2L designate 12 identical segments of cylindrical tubing. Each of those segments is turned at its mid portion, to provide a right angled elbow 3A through 3L.

Reference characters 4a—4l and 4a'—4l' refer to the ends of segments 2A—2L. It will be noted that the end 4a on segment 2A abuts the end 4l' on segment 2L. Similarly, the other end of segment 2A, namely 4a' abuts the end of segment 2B, namely 4b. Likewise, end 4b' abuts end 4c of segment 2C; end 4c' of segment 2C abuts end 4d of segment 2D; end 4d' of segment 2D abuts end 4e of segment 2E; and so on until end 4l', of segment 2L abuts end 4a of segment 2A, as previously described.

Identical plastic bearing sleeves 5 are fitted within the open ends of each abutting segment 2A—2L. These plastic bearing sleeves are of a cross-sectional diameter slightly greater than the inner diameter of the tubular segments 2A—2L so that they will form a slidable bearing surface about which segments 2A—2L may rotate. Each of said plastic bearing sleeves 5 is bisected by the abutting edges of the adjoining tubular segments

2A—2L. Each end of each plastic bearing sleeve 5 extends into an adjoining and abutting segment approximately onehalf its length, and each plastic bearing sleeve is sufficiently long so as to provide a good bearing surface within the end of each adjoining tubular segment 2A—2L.

A length of elastic material 6 is strung through the entire assembly, consisting of tubular segments 2A through 2L and plastic bearing sleeves 5. This elastic material 6, when unstretched, if of a length somewhat less than the total length of the segments 2A through 2L, and thus serves to keep the abutting ends of said tubular segments in juxtaposition when the device is at rest, to form an endless structure.

The opposed ends of elastic material 6 are joined by clipping, stapling, or splicing or in any other conventional manner, in order to form said elastic material into an endless loop.

The particular toy described is, obviously, subject to many modifications. For example, each of segments 2A through 2L could be modified to incorporate an angle of lesser or greater degree than 90°. In other embodiments of the toy, the number of segments might be increased or decreased, and the particular dimensions of each segment might be modified. Also, different segments in any particular embodiment might be of a length different from the length of other segments in that embodiment; or be formed with angles different from the angles of other segments within the same embodiment.

The device is intended to provide a toy which can be manipulated into a myriad of different positions. It can, for example, be put in the flat position shown in FIG. 1 (which resembles diamond configurations); or it can be manipulated to be put in a large number of different configurations; for example, the configurations shown in FIGS. 3, 4, 5, and 6.

Indeed, inasmuch as the adjoining segments can be twisted in innumerable positions, the device as a whole can be put into an infinite number of different configurations.

The device functions to amuse and relax the user thereof. It may be said to be a "conversation piece."

Having thus described my invention, what I claim is:

1. A toy comprising a plurality of hollow, tubular segments; each of said segments being formed with an angle to provide an elbow and arranged in abutting end-to-end juxtaposition; means at the ends of abutting segments forming a surface around which said abutting segments may be rotated with respect to each other; and an endless loop of elastic material strung under tension through the entire structure, said toy being adapted to be manipulated into a variety of different positions.

2. A toy comprising a plurality of hollow, tubular segments; each of said segments being formed with an angle to provide an elbow and arranged in abutting end-to-end juxtaposition; means forming a surface around which said segments may be rotated with respect to each other, said means comprising a plurality of plastic sleeves; each of said sleeves being fitted within the adjoining ends of abutting segments; and an endless loop of elastic material strung under tension through the entire structure, said toy being adapted to be manipulated into a variety of different positions.

3. A toy comprising a plurality of hollow, tubular segments, a plurality of plastic sleeves, and an endless loop

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of elastic material; each of said segments being formed with an angle to provide an elbow; said segments being arranged in abutting end-to-end juxtaposition; said plastic sleeves being inserted within the open ends of abutting segments thereby providing means around 5

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which said abutting segments may be rotated with respect to each other; said elastic material being strung under tension through the entire structure.

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