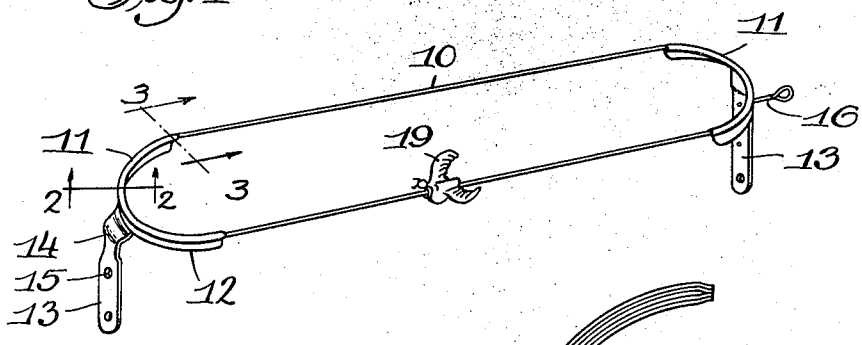
June 25, 1940. J. J. CLARK 2,205,941

MONORAIL TOY

Filed Sept. 28, 1938

Fig. 1



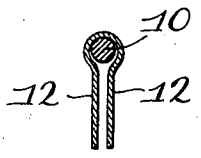


Fig. 2

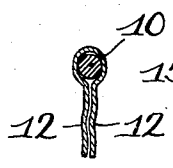


Fig. 3

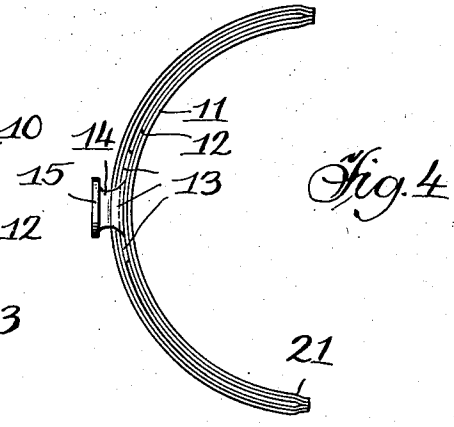
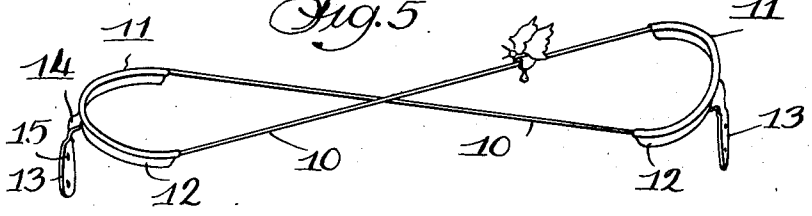


Fig. 4

Fig. 5



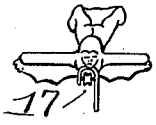
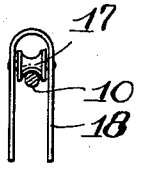


Fig. 7

Fig. 6



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Patented June 25, 1940 2,205,941

UNITED STATES PATENT OFFICE

2,205,941

MONORAIL TOY

John J. Clark, Des Moines, Iowa

Application September 28, 1938, Serial No. 232,185

1 Claim. (Cl. 46—77)

My invention relates to improvements in toys, and more particularly to the type in which a small vehicle travels on a monorail. Preferably the vehicle represents flying things as airplanes, birds, butterflies, bat and bird men, Zeppelins, etc.

In one form of the invention the track is made of string, cord, or flexible wire held in two substantially parallel strands, to form a closed loop, by means of reinforcing rigid curved end members, the latter being provided with suitable supports such as handles, by means of which the flexible strands may be held under tension to keep them from sagging appreciably.

In another form the track is made of wire or other light weight material of small cross section but stiff enough to maintain itself with out being held under tension.

In the drawing:

Fig. 1 is a perspective view of a monorail in the form of a closed loop;

Fig. 2 is a section on the line 2—2 of Fig. 1;

Fig. 3 is a section on the line 3—3 of Fig. 1;

Fig. 4 is a bottom view, on an enlarged scale, of one of the rigid curved ends;

Fig. 5 is a modification of the form shown in Fig. 1;

Fig. 6 is an elevation of a pulley and bracket, comprising part of a toy vehicle; and

Fig. 7 is a perspective view of a toy "Bat Man."

In Fig. 1, the monorail 10 is in the form of a loop or string or cord or other flexible material, and is provided with substantially rigid, curved reinforcements 11 at each end of the loop which maintain said ends in semi-circular form. One form of reinforcement is shown in Figs. 2, 3 and 4 as a sheet of metal bent over on itself in an inverted U-shaped form so as to embrace the string 10 somewhat like a clamp. In other words, a channel is formed through which the string may be threaded. The metal reinforcement has a generally semi-circular form to provide smoothly curved ends for the loop or track. As shown in Fig. 3, the parallel arms 12 of the U-shaped member may be pressed together to clamp the string in place to hold it against slipping, or to clamp one end of the string in case the two parallel strands are made of two single lengths of string.

The reinforcing members 11 are provided with supporting devices 13 which may be used as handles, which handles may in one form consist of a piece of sheet material, curved as shown in Fig. 4, to fit into the bottom of the slot and either soldered in place, riveted or held frictionally by pressing the side walls 12 of the slot together. The curvature of the handle stiffens it, particularly where it is made of sheet metal. The handles may be held in the hands, or one of them at least may be mounted on a fixed support. For this purpose one handle may be offset as indicated at 14 at the left-hand of the loop, so that as the vehicle travels around the semi-circular end of the track it will clear the support. Said handles or supporting brackets may be provided also with openings 15 to enable them to be nailed or screwed to a post, a tree, or other suitable support. It will be understood, of course, that both handles may be provided with the offset 14, if desired or, as shown at the right hand end, an eyelet 16 may be provided, so that if the handle is hooked or tied to a fixed support it will have a tight swivel action, as hereinafter explained.

The vehicle may be constructed in various different forms, one appropriate form being shown in part in Fig. 6, in which a small pulley 17 is mounted in the upper end of a depending U-shaped support 18. The toy, such as representation of an airplane, bird, etc., may be cut out of paper or metal, and secured to the support 18 in any suitable manner, so as to simulate a flying insect 19, shown for example in Fig. 1, or a vehicle in the form of an airplane (not shown) or a Bat Man as in Fig. 7. The arrangement is such that the center of gravity is below the string or wire 10, and the depending arms of the U-shaped member clear the metal reinforcements 11 as the vehicle rounds the turns. Various other forms of frames may be used to carry the device which represents the flying object.

Where the handles are held each in one hand, they are held apart so as to maintain the flexible track 10 under tension, and by lowering one end or the other of the track and tilting the same appropriately the vehicle may be caused to run around the loop in one direction or the other.

Instead of holding both handles in the hand, one handle may be tied or hooked to the end of a chair or other convenient object, while the other end is raised or lowered to produce the necessary down grade to propel the vehicle around the course. By using the eyelet 16 in tying or hooking the device to the stationary object, the necessary swiveling or tilting of the track may be effected by manipulating the handle at the distant end. In such case the U-shaped member 18 clears the eyelet, which is below the level of the track or monorail.

It is also evident that where one end of the monorail loop is secured to a fixed object, the

loop may be made almost indefinitely long, i. e., the track may extend across the room or the length of the lawn, if the device is used outdoors.

In Fig. 5 the ends of the loop may be assumed to be of the same construction as those previously described, but the flexible cord or cords 10 cross each other, the handles being so held that one span of the string is above the other. Thus the vehicles may travel on a figure 8 track.

Although one-wheel vehicles are preferable, it is apparent that an additional wheel or wheels may be used, if desired. However, the light weight of the vehicle is one of the features of the toy in that the track must be maintained under tension to prevent too much sagging.

I claim as my invention:

In a flying toy, a closed loop of track of flexible material having stiffening supports at opposite ends, whereby said supports may maintain said flexible tracks under the necessary tension, said supports comprising inverted U-shaped members to receive said flexible track and curved to form the ends of said track, and a handle received between the arms of each U-shaped member.

JOHN J. CLARK.