June 23, 1931. S. L. LONG 1,811,056

TOY

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Fig-1

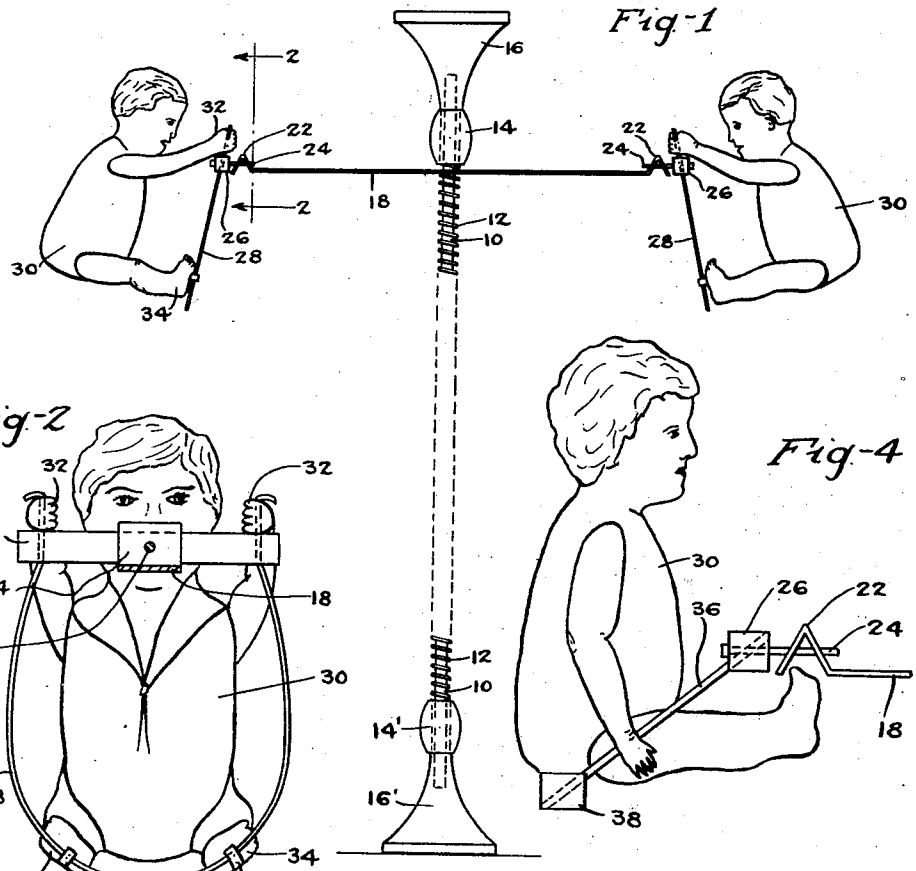


Fig-2

Fig-4

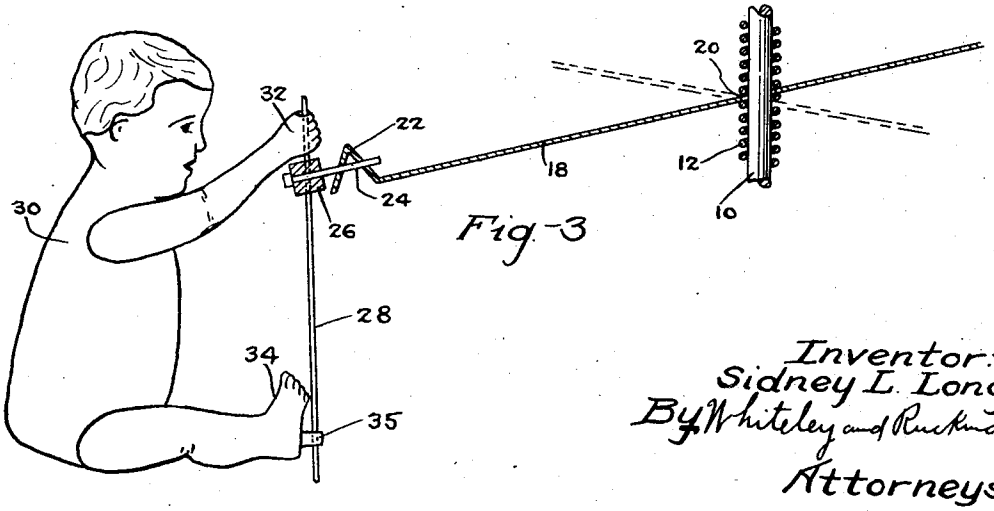


Fig-3

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Fig-5

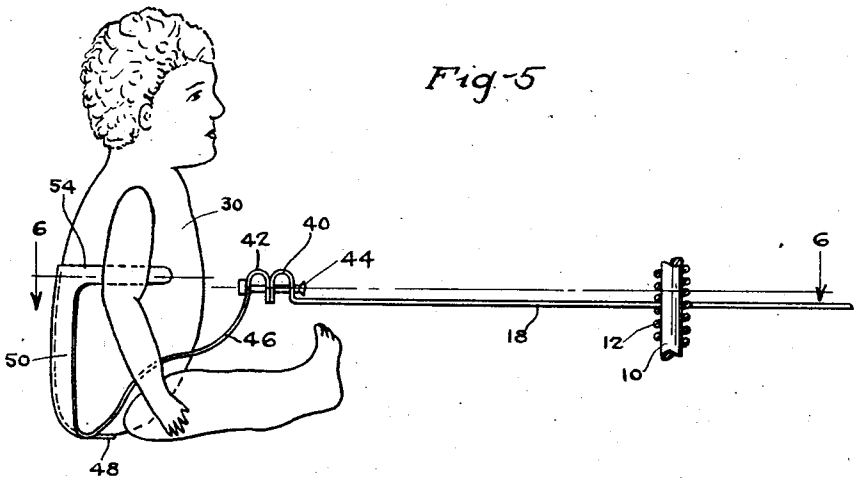
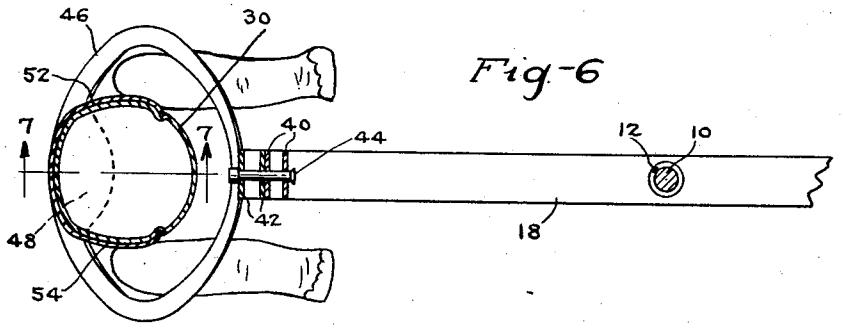


Fig-6



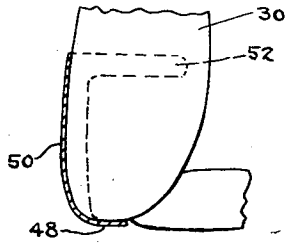


Fig-7

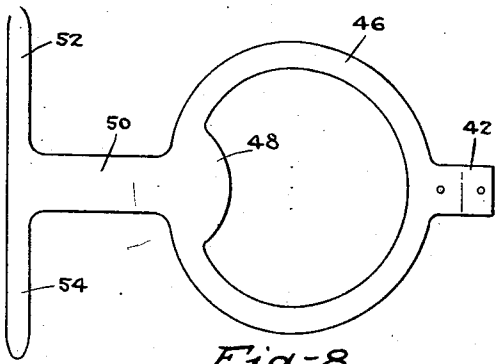


Fig-8

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Patented June 23, 1931 1,811,056

UNITED STATES PATENT OFFICE

SIDNEY L. LONG, OF MINNEAPOLIS, MINNESOTA

TOY

Application filed August 17, 1929. Serial No. 386,595.

My invention relates to toys and an object is to provide a device which while of a simple and inexpensive nature, will be amusing and attractive for children. In carrying out my invention, I provide a standard upon which a rider is mounted, the device being so constructed and arranged that as the rider works its way downwardly on the standard by gravity, an oscillating or see-saw movement is imparted to the rider and at the same time a rotary movement is imparted thereto. A further object is to provide toy figures which are pivotally mounted on the rider with their center of gravity below the pivotal point whereby the figures will assume a right-side-up position regardless of which end of the standard is uppermost. In furtherance of this object, I provide both ends of the standard with base members so that when the rider and the figures carried thereby have descended and come to rest adjacent the lower base member, the device may be inverted and then the base member which was uppermost will become the lower base member. In this manner, the sequence of movements of the rider and the figures carried thereby may be repeated over and over merely by turning the standard end for end.

The full objects and advantages of my invention will appear in connection with the detailed description thereof, and the novel features of my inventive idea will be particularly pointed out in the claims.

In the accompanying drawings which illustrate my invention embodied in practical form,—Fig. 1 is an elevational view of one manner of constructing the device. Fig. 2 is a view in section on the line 2—2 of Fig. 1 and on an enlarged scale. Fig. 3 is a fragmentary elevational view with a portion in section. Fig. 4 is a fragmentary elevational view showing a modification. Fig. 5 is a fragmentary elevational view of another form of the invention. Fig. 6 is a view in section on the line 6—6 of Fig. 5. Fig. 7 is a view in section on the line 7—7 of Fig. 6. Fig. 8 is a plan view of a carrier employed in this last form of the invention.

As shown in the drawings, I provide a standard 10 around which there is a helical thread which may be produced in any suitable manner. As shown, this thread is in the form of a coiled wire 12, the intermediate portion of which is indicated in dotted lines only in Fig. 1. The two ends of the coil 12 are in engagement with beads 14 and 14′ respectively through which the two end portions of the standard 10 pass. These beads are held by the tension of the coil 12 in engagement with base members 16 and 16′ respectively to which the ends of the standard 10 are secured. A rider 18 which is shown as a bar of sheet metal is mounted on the standard. This rider 18 has a central hole 20, the diameter of which is slightly less than that of the thread 12 but is greater than that of the standard 10 whereby the rider moves freely with relation to the standard and may have an oscillating movement but at the same time is restrained by the coil 12 so as to be given thereby a rotating movement as it moves downwardly by gravity. The sheet metal of the rider 18 is thinner than the distance between adjacent convolutions of the coil with the result that when the rider is disposed at the upper end of the standard, it will work its way downwardly by gravity so that a combined oscillating and rotating movement is imparted thereto. As shown in Figs. 1 to 4, the bar 18 is provided with a V-shaped crimp 22 at each end thereof. Each of the two branches of the V-shaped crimp is provided with a hole, the two holes being in alinement with each other when the two portions of the crimp are pressed toward each other. When the crimp is in this position, a pivot pin 24 is inserted through the two holes and then upon releasing the crimp, the pin 24 will

be firmly clamped by the resiliency of the metal. The outer end of the pin 24 carries a bar 26 rotatably mounted thereon. In the form shown in Figs. 1 to 3, the ends of a wire 28 of bail-like form pass through the two end portions of the bar 26 in such manner that the wire is outwardly and downwardly inclined. This wire 28 is employed as a carrier or support for a toy figure 30, there being of course one for each end of the rider 18. The figure 30 is shown in the form of a doll which is preferably hollow and made of celluloid. As shown in Fig. 2, the hands 32 of the doll have perforations through which the ends of the wire 28 pass while the feet 34 have struck out portions 35 through which the curved portion of the wire passes. In the form shown in Fig. 4, the upper ends of a pair of downwardly and outwardly inclined rods 36 are secured to the bar 26, while a bar 38 is secured to the lower ends of the rods 36. In this form, the doll 30 is secured to the bar 38 in such manner as to be seated thereon in lifelike position. In the form shown in Figs. 1, 2, and 3, the figure is caused to assume a lifelike position with the hands grasping the upper ends of the wire 28 and the feet braced against the lower curved portion of the wire 28.

In the form shown in Figs. 5 to 8, the end of the rider 18 is provided with an upwardly bowed portion 40 as shown in Fig. 5, it being understood that both ends of the rider are similarly shaped. A carrier or support is provided with a similar upwardly bowed portion 42 which is placed against the portion 40 so that holes in the two portions register with each other. A pivot pin 40 passes through the holes and is secured therein whereby the carrier which has the portion 42 is rotatably mounted. As will be understood from Fig. 8 which shows a plan view or development, the carrier has a ring member 46 which extends downwardly and outwardly from the bowed portion 42. The outer portion of the ring 46 is enlarged to form a seat member 48 and an outward extension 50 from which two arms 52 and 54 extend laterally. As shown in Fig. 5, the extension 50 is bent upwardly and the arms 52 and 54 are bent inwardly. The toy figure 30 is placed on the seat 48 and the ends of the arms 52 and 54 are pinched into the body of the toy figure so that it is securely clamped in place as will be understood from Fig. 6.

In using the device, the rider 18 when positioned at the upper end of the standard, will slide downwardly over successive convolutions of the wire 12 so as to have an oscillating or see-saw movement imparted thereto as indicated in Fig. 3. At the same time, the helical form of the wire will cause the rider to rotate as it gradually moves downwardly. When the rider has reached the bottom, the device may be quickly inverted so as to bring the rider again into uppermost position. While inverting the device, the figures will turn through 180° so as to be positioned "heads up." In the form shown in Figs. 1, 2, and 3, the body of the figure is below the pivot pin. In the form shown in Fig. 4, a considerable portion of the body of the figure is above the pivot pin but the weight of the bar 28 and the rods 36 is sufficient to bring the center of gravity below the pivot. In the form shown in Figs. 5 to 8, a considerable portion of the body of the figure is above the pivot pin but the weight of the carrier is sufficient to bring the center of gravity below the pivot. Therefore, in all of the forms shown, the center of gravity is below the pivot so that the figures always occupy a position with their heads up. The inclined position of the carrier for the figures causes the figures to be positioned beyond the ends of the rider and thus they may readily turn.

I claim:

1. In a device of the class described, the combination of a standard surrounded by a helix, a bar slidable on said helix and adapted to gravitate from top to bottom thereof with an oscillating and rotating motion, outwardly and downwardly extending members pivotally attached to the ends of said bar, seats formed on the lower portions of said members, toy figures positioned on said seats, arms formed on the upper portions of said members having clamping engagement with said toy figures, and base members secured to the two ends of said standard.

2. In a device of the class described, the combination of a standard surrounded by a helix, a bar slidable on said helix and adapted to gravitate from top to bottom thereof with an oscillating and rotating motion, outwardly and downwardly extending members pivotally attached to the ends of said bar, seats formed on the lower portions of said members, toy figures positioned on said seats, extensions projecting upwardly from said seats, arms extending laterally from said extensions having clamping engagement with said toy figures, and base members secured to the two ends of said standard.

3. In a device of the class described, the combination of a standard surrounded by a helix, a bar slidable on said helix and adapted to gravitate from top to bottom thereof with an oscillating and rotating motion, the ends of said bar having bowed portions, carriers having bowed portions adjacent said first bowed portions respectively, pivot pins passing through said bowed portions, said carriers rotatably mounted on said pivot pins, toy figures mounted on said

carriers, and base members secured to the two ends of said standard.

4. In a device of the class described, the combination of a standard surrounded by a helix, a rider slidable on said helix and adapted to gravitate from top to bottom thereof with an oscillating and rotating motion, a pair of spaced pivot supporting members on each of the ends of said rider, said members containing perforations, pivot pins passing through said perforations, outwardly inclined members carried by said pivot pins, and toy figures supported by said outwardly inclined members.

In testimony whereof I hereunto affix my signature.

SIDNEY L. LONG.