

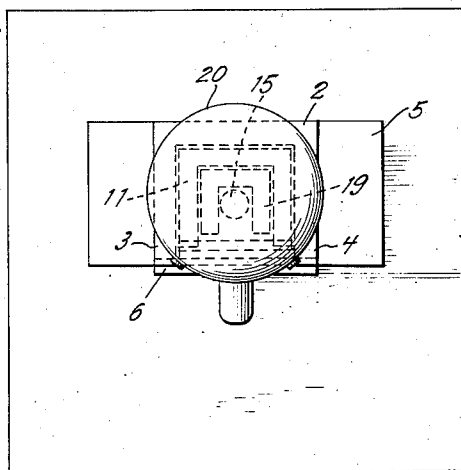
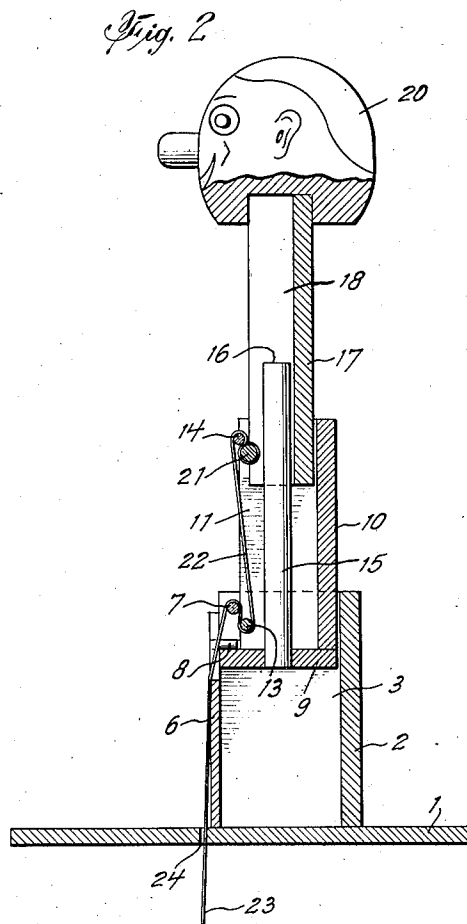
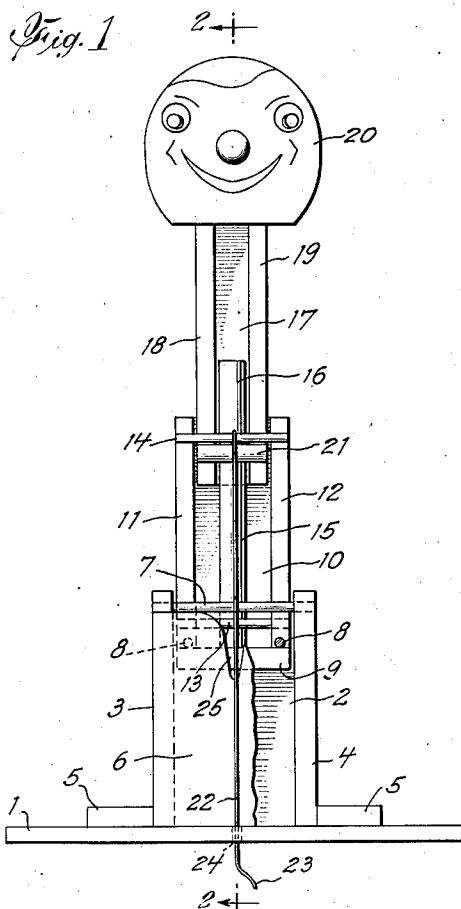
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MECHANICAL DISPLAY DEVICE

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MECHANICAL DISPLAY DEVICE

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The present invention is directed to display devices, more particularly to mechanical devices which are adapted for numerous uses, such as advertising, toys, and many others.

In the past many mechanical devices have been used for display purposes. Such constructions were of many types and they usually embodied metal members. Among such devices were the so-called jack-in-the-boxes which embodied among other elements, a spring to cause a figure to suddenly rise up out of the box. Another type of construction comprised two figures in a box, both of them mounted on a crank which was operated by hand. By the rotation of said crank, first one of the figures was raised above the box and then the other, while the first was caused to be lowered into the box. This structure was relatively complicated, and it required metal members in its construction.

The present invention is intended to be of a similar type in which a figure or other display device is caused to be raised up out of a container. It is among the objects of the invention to provide a construction of a mechanical display device in which the elements may be of a non-metallic nature, which is simple in its construction, which may be manipulated by hand, and which is adapted to provide an attractive display.

It is also among the objects of the present invention to provide a construction in which the display figure or other element may be caused to rise out of its container in stages, contrary to the devices of the prior art.

In the practice of the present invention, I provide a construction in which there is a base on which an extension projects in an upwardly direction. Said extension is hollow and has within the same a slide which may be caused to rise up out of the extension to a predetermined position. This slide is hollow and has within it a second slide which is mounted in a manner similar to the first slide and is capable of being similarly raised up out of the first slide but only to a predetermined position. At the top of the inner slide there is provided a suitable display element which, for example, may be the head of a doll or any other display. In order to provide means for readily manipulating the slides, there is incorporated into the structure a piece of cord or the like which is usually attached at one of its ends to the inner slide, is then looped about suitable elements in the other members and finally the free end of the cord passes through an opening in the base of the device.

To operate the same, the free end of the cord

is pulled. This causes the inner slide to first be raised to the top of its path of travel when it contacts with a stop member on the hollow slide. Then upon further pulling of the cord the inner slide is caused to be raised up until it contacts with a stop on the extension which limits the movement. Thereby the display is raised to its extreme limits. When the tension on the cord is released, both of the slides will be retracted to their original positions by the action of gravity.

The invention will be more fully explained below in conjunction with the accompanying drawing constituting a part hereof and in which like reference characters indicate like parts in the several figures, and in which:

Figure 1 is a front elevational view of the device of the present invention, showing the same in its fully extended position and some parts being broken away for clearness;

Figure 2 is a vertical cross-sectional view thereof taken along the line 2—2 of Figure 1; and

Figure 3 is a top plan view of the structures shown in Figures 1 and 2.

Referring to the drawing, there is provided a base, which may be a flat rectangular plate. Extending upwardly therefrom is an extension consisting of a rear member 2 and a pair of opposite side members 3 and 4. Side plates 5 are cemented to the base 1 and to the members 2, 3, and 4. This forms a hollow extension within which a slide may operate.

Within the same is a block accommodating space of a shape which, as shown, is rectangular in outline. To fully enclose this space there is provided a cover member 6 which closes the front thereof. Across the top of the open extension is a bar 7 adjacent the front thereof. Pins 8 project inwardly from the cover 6 and act as stops for the inner, lower hollow slide.

Said hollow slide comprises a block 9 snugly filling the said space but allowing sliding movement thereof. Secured thereto is a rear slide member 10. A pair of side slide members 11 and 12 are secured to rear member 10 leaving the front of the hollow slide so formed open. A bar 13 is secured across the front of said slide at the lower end thereof in such a position that when the slide is in its uppermost position it will be slightly below the bar 7 of the extension.

A vertical member 15, usually circular in cross-section, is secured to block 9 and extends upwardly to a point above the top of slide 10, the tip 16 thereof being a sufficient distance above the same so as to not only provide a guide of the uppermost, innermost slide but also to give it

adequate support against sidewise motion when the inner slide is in its fully extended position.

The inner slide consists of a rear member 17 having a pair of side members 18 and 19 secured thereto forming a hollow member with the front thereof open, and providing a sufficient space so that the vertical member or guide 15 may fit snugly and still allow free sliding thereof during the movements of said slide. Fitted onto the top of this slide is the display member 20, as shown in the drawing being the head of a doll or clown. It may be fitted in various manners but as shown a depressed portion in the bottom thereof receives the top face of the slide 17. A bar 21 is attached to the front of slide 17 at the lower end thereof in such a position that when the slides are in uppermost positions it contacts with the under side of bar 14, and thus acts as a stop for the inner slide.

A string or cord 22 has one end tied to the bar 21. It is looped over bar 14 of slide 10, then under bar 13 of slide 10, then over bar 7 of extension 2, then out in front of cover 6 through the V-shaped opening 25 thereof. It then passes through opening 24 in the base 1.

Although the invention has been described in connection with but a single embodiment thereof, it is within the scope of the invention that many different and diverse forms of the invention may be made, and that the single embodiment is merely illustrative of the many possible forms of the invention. While I made the entire device wholly of wood and have thus avoided the use of metals, metal may, of course be used, if desired. Any of the available materials of construction are adaptable. The device may be used for amusement purposes, as toys for children, for advertising purposes, to provide magical effects, as stage property, and for various other applications. Other types of displays may be substituted for the head shown in the drawing. For instance, a package may be put in its place, or the slides may be in the form of the legs of a clown so that when raised his legs stretch out.

These and many other variations in the specific embodiment of the invention may be made within the spirit of the invention, the scope of which is defined by the character of the claims appended hereto.

What is claimed is:

1. A display device comprising a base, a hollow extension secured thereto and extending upwardly therefrom, a hollow slide in said extension, an inner slide within said first slide, a display member secured on said inner slide, and a cord having one end fixed to said inner slide, and threaded around said first slide and said extension, whereby a pull on the free end of said string will raise said slides.

2. A display device comprising a base, a hollow extension secured thereto and extending upwardly therefrom, a hollow slide in said extension, an inner slide within said first slide, a display member secured on said inner slide, a

guide in said first slide projecting above the same and contained at least partly in said inner slide, and a cord having one end fixed to said inner slide and threaded around said first slide and said extension, whereby a pull on the free end of said cord will raise said slide.

3. A display device comprising a base, a hollow extension secured thereto and extending upwardly therefrom, a hollow slide in said extension, an inner slide within said first slide, a display member secured on said inner slide, stop members on said extension and first slide to limit the upward motion of said slide, and a cord having one end fixed to said inner slide and threaded around said first slide and said extension, whereby a pull on the free end of said cord will raise said slide.

4. A display device comprising a base, a hollow extension secured thereto and extending upwardly therefrom, a hollow slide in said extension, an inner slide within said first slide, a display member secured on said inner slide, bars on said extension and slides for the reception of a cord, and a cord having one end fixed to said inner slide and threaded around said first slide and said extension, whereby a pull on the free end of said cord will raise said slides.

5. A display device comprising a base, a hollow extension secured thereto and extending upwardly therefrom, a hollow slide in said extension, an inner slide within said first slide, a display member secured on said inner slide, bars at the top of said extension and at top and bottom of said first slide for the reception of a cord, and a cord having one end fixed to said inner slide and threaded around said first slide and said extension, whereby a pull on the free end of said cord will raise said slides.

6. A display device comprising a base, a hollow extension secured thereto and extending upwardly therefrom, a hollow slide in said extension, an inner slide within said first slide, a display member secured on said inner slide, said extension and slides being rectangular in cross-section and providing a plurality of slide surfaces, and a cord having one end fixed to said inner slide and threaded around said first slide and said extension, whereby a pull on the free end of said cord will raise said slides.

7. A display device comprising a base, a hollow extension secured thereto and extending upwardly therefrom, a hollow slide in said extension, an inner slide within said first slide, a display member secured on said inner slide, and a cord having one end fixed to said inner slide and threaded around said first slide and said extension, said extension having an open front and a removable cover thereon, said cord passing in front of said cover and through said base, whereby a pull on the free end of said cord will first raise said inner slide and then said hollow slide.

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