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TETHERED PNEUMATIC TOY

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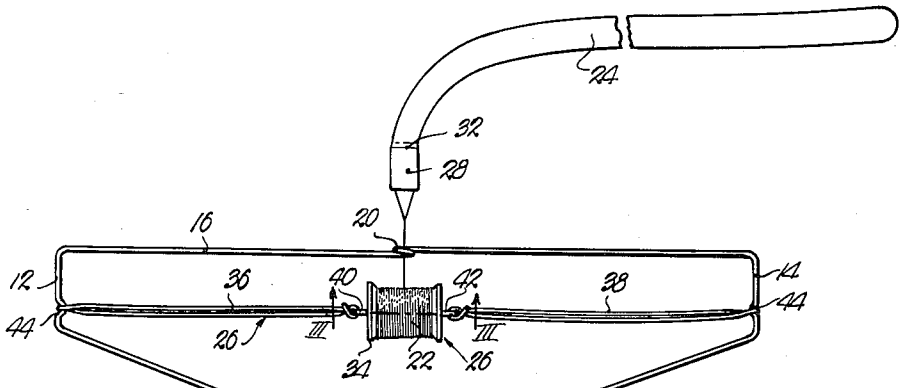
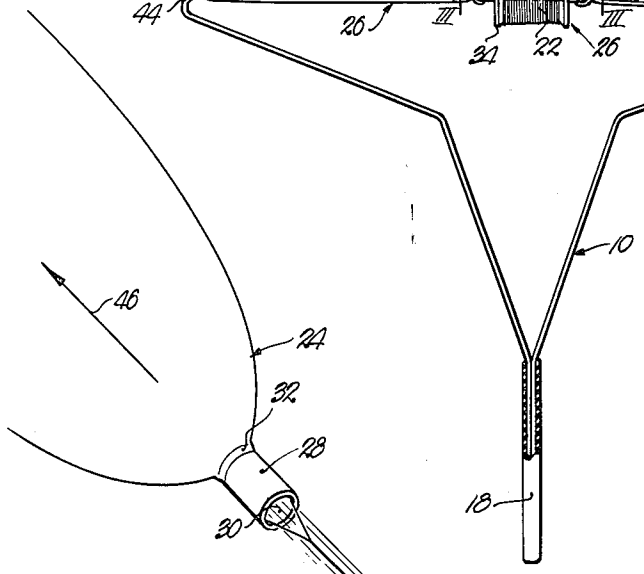


Fig. 1.



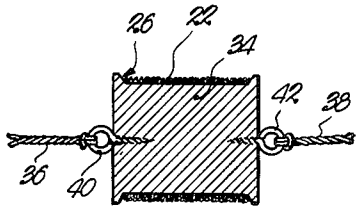


Fig. 3.

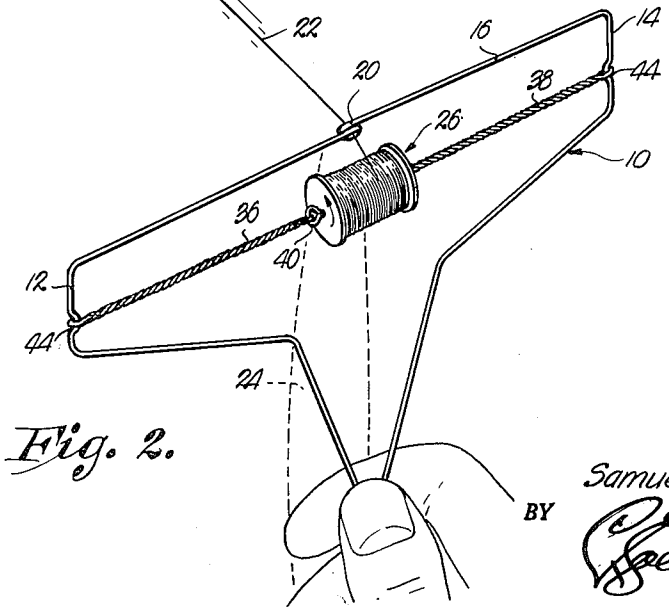


Fig. 2.

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TETHERED PNEUMATIC TOY

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5 Claims. (Cl. 46—88)

This invention relates to an improved toy capable, when placed in operation, of advancing or projecting outwardly in space away from the child under its own power and thereupon automatically returning to the child for re-energizing the same and for subsequent use.

It is the most important object of the present invention to provide a toy that has a self-propelled device suitably attached to a winding mechanism so that when the device is permitted to advance to one end of its path of travel away from the child, the winding mechanism will automatically return the device to the child.

Another important object of the present invention is to provide a toy utilizing an inflatable device such as a ballon tied to one end of a thread, cord or the like, which is in turn wound upon a mechanism that becomes energized as the ballon is permitted to project into space whereby to automatically return the ballon to the child.

Other objects include the way in which the winding mechanism takes the form of a rotatable spool mounted on a support between a pair of rubber bands; the way in which the thread that is normally wound on the spool is guided therefrom by parts on the support; the manner of attaching the thread to the balloon; and many more minor objects all of which will be made clear or become apparent as the following specification progresses.

In the drawing:

Figure 1 is an elevational view of a pneumatic toy made pursuant to the present invention.

Fig. 2 is a perspective view thereof; and

Fig. 3 is an enlarged, fragmentary, detailed, cross-sectional view taken on line III—III of Fig. 1.

Any suitable support may be provided for the toy hereof and, in its simplest form, support **10** is made from wire bent to present a pair of short, spaced, parallel arms **12** and **14** interconnected by a rod **16**. The ends of the wire forming the support **10** terminate within a tubular handle **18**, the latter being removable for purposes hereinafter to be made clear.

Rod **16** is provided with a guide loop **20** midway between the ends thereof for a thread, cord or the like **22** interconnecting a self-propelled device **24** and winding mechanism broadly designated by the numeral **26**.

The self-propelled device chosen for illustration is in the nature of a toy balloon and is, therefore, inflatable, the neck **28** thereof receiving a short, flexible tube **30** to which the thread **22** is rigidly secured. The tube **30** is insertable within the neck **28** and held therein, not only by frictional grip, but by virtue of the end of the neck **28** looping over the outermost end of the tube or sleeve **30**. Accordingly, as the balloons **24** break, they may be replaced simply by threading the neck **28** thereof over the sleeve **30**. As an additional means of holding the tube **30** is place the latter is provided with an external bead (not shown) on the innermost end thereof over which the neck **28** engages as at **32**.

The winding mechanism **26** includes a rotatable member that may take the form of a spool **34** having one end

of the thread **22** secured thereto and around which the thread **22** is normally wound as shown in the drawing. Spool **34** is supported by and between the arms **12** and **14** through the medium of a pair of opposed attenuable elements, which in the embodiment chosen for illustration, takes the form of rubber bands **36** and **38**. One end of the bands **36** and **38** is tied to the spool **34** and particularly, to opposed screw eyes **40** and **42**, disposed in direct alignment with the axis of rotation of spool **34** and the opposite ends of the rubber bands **36** and **38** are looped over the arms **12** and **14**. The bands **36** and **38** are held against movement along the arms **12** and **14** by the provision of kinks **44** in the arms **12** and **14**. By virtue of the fact that the handle **18** is removable, the bands **36** and **38** may be replaced simply by threading the same into the wire-like support **10** after tying the bands to the screw eyes **40** and **42**.

It is to be preferred that the bands **36** and **38** be stretched taut between the spool **34** and the arms **12** and **14** even when the thread **22** is completely wound on the spool **34**, and it is preferable further, that the bands **36** and **38** be partially wound at the time the balloon **24** is adjacent the support **10**, all for the purpose of providing a slight torque on the spool **34** in the direction of winding of the thread **22** thereon.

In operation, the user inflates the balloon **24** and thereupon pinches the neck **28** and the tube **30** until he is ready to release the balloon for travel in any desired direction away from the user holding the support **10** through use of handle **18**. As soon as the balloon **24** is released, the same will travel away from the support **10** substantially in the direction of the arrow **46** by virtue of a jet action resulting from air escaping from the balloon **24** with force through the tube **30**. As soon as the balloon **24** reaches the outermost end of its path of travel, either by virtue of its becoming completely deflated, or by virtue of the thread **22** becoming completely unwound from the spool **34**, balloon **24** will be quickly and immediately returned to the child. This action is the result of winding of the rubber bands **36** and **38** automatically as the balloon **24** pulls upon the thread **22** and unwinds the same from the spool **34**.

It is absolutely essential to the action above described, that the rubber bands **36** and **38** be disposed in precise alignment with the axis of rotation of the spool **34**, and it is to be preferred that the spool **34** be centered midway between the arms **12** and **14**. It has been found further that the device operates best when the balloon **24** takes the shape of a cigar such as is illustrated in the drawing, rather than other configurations that would tend to prevent a straight path of travel for the balloon **24** as it moves away from the support **10**.

It is appreciated further that within the concepts of the present invention, means other than balloons might be used on the thread **22** so long as the same is self-propelled.

While as above set forth the support **10** may be easily and inexpensively manufactured in a simple manner such as illustrated in the drawing, other shapes and forms for the support may be provided, and to this end a housing for the rubber bands **36** and **38**, as well as for the spool, may be used according to the desires of the manufacturer.

Having thus described the invention what is claimed as new and desired to be secured by Letters Patent is:

1. A pneumatic toy comprising a support including a pair of spaced arms and a guide loop; a spool between said arms; a rubber band connecting the spool with each arm respectively for rotatably supporting the spool; a thread normally wound on the spool and extending through said loop; a balloon having a neck; and means releasably joining the balloon to the thread including a

flexible sleeve secured to the balloon in said neck and attached to the thread.

2. A pneumatic toy as set forth in claim 1 wherein said spool is provided with a pair of opposed, axially aligned screw eyes receiving the rubber bands.

3. A pneumatic toy as set forth in claim 2 wherein said arms are each provided with an offset kink receiving the rubber bands.

4. A pneumatic toy as set forth in claim 3 wherein said support has a rod joining the arms, the loop being formed in the rod midway between the ends thereof in alignment with the spool.

5. A pneumatic toy comprising a support including a pair of spaced elements; a spool between said elements; a rubber band connecting the spool with each element

respectively for rotatably supporting the spool; a thread attached at one end thereof to said spool and normally wound thereon; a toy balloon; and means joining the balloon to the thread at the opposite end of the latter.

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