May 9, 1961 C. W. MELVIN 2,983,471

TOY

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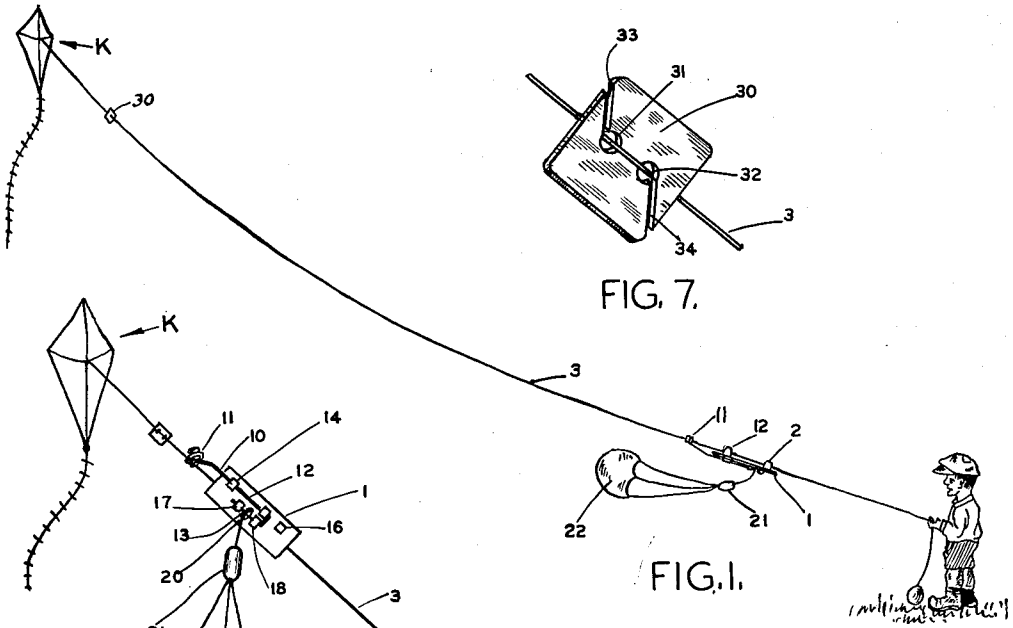


FIG. 1.

FIG. 7.

FIG. 2.

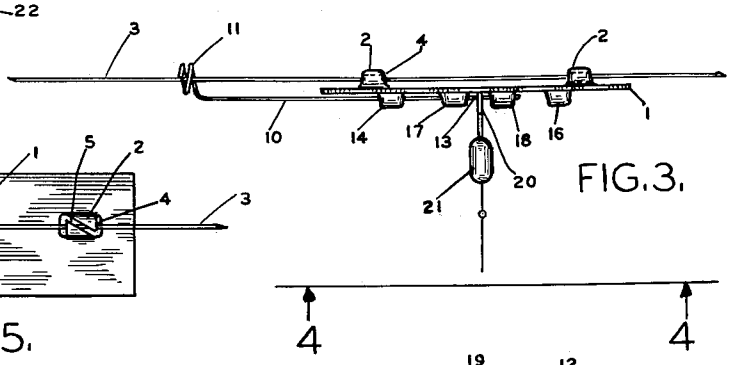


FIG. 3.

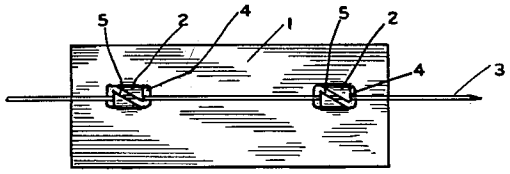


FIG. 5.

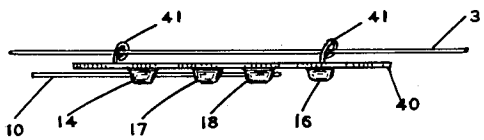


FIG. 6.

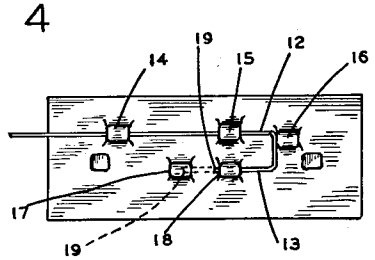


FIG. 4.

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1 Claim. (Cl. 244—155)

This invention relates to a toy and more particularly to a toy for use with a flying kite which utilizes a string traversing carriage and a releasable parachute which may be repeatedly used without lowering the kite.

The toy of the present invention includes a kite string mountable carriage to which may be attached a small light weight, toy parachute. The carriage, which operates as a small tramway, is freely reciprocal on the kite string, and wind pushing against the billowed canopy of an attached parachute pulls the carriage up the kite string toward the flying kite. A trigger mechanism is provided on the kite string so that at a predetermined point the parachute is released permitting it to float back to the earth. The carriage, by its own weight, slides back down the kite string.

It is an important object of the invention to provide a toy for use with a flying kite which transports a toy parachute to a predetermined height on the kite string and releases the parachute at that point permitting the parachute to float to the earth.

It is another object of the invention to provide a kite string mountable toy which may be mounted on and dismounted from a kite string without lowering the flying kite.

It is a still further object of the invention to provide a toy which may be repeatedly used on a flying kite without lowering the kite for operation of the toy.

It is a further object of the invention to provide a toy including a releasable parachute which is arranged for attachment to a flying kite and which is wind raisable to a predetermined position on the kite string and then after releasing a parachute returns a portion of the toy to the holder of the kite string.

These and other objects and advantages of the invention may be readily ascertained by referring to the following description and appended illustrations in which:

Fig. 1 is a perspective view of a toy according to the invention mounted on the string of a flying kite;

Fig. 2 is an enlarged detailed view of a toy according to the invention immediately prior to the release of a releasable parachute;

Fig. 3 is a side elevational view of a carriage according to the invention in parachute carrying position;

Fig. 4 is a bottom plane view of a toy parachute carriage according to the invention, illustrating the parachute release position;

Fig. 5 is a top plane view of a parachute carrying carriage showing the string mounting holders;

Fig. 6 is a side elevational view of a modified carriage mounted on a string; and,

Fig. 7 is a perspective view of a trigger stop for a releasable parachute carriage according to the invention.

In the device illustrated, a body or carriage **1** is arranged with loops or string mounts **2** positioned adjacent the ends of the body for supporting it on a kite string **3**. The body **1** may be of wood, plastic, light metal, or the like, and should be light enough that an

attached parachute easily pulls it up the kite string by a wind which is sufficient to fly the kite. The carriage should be heavy enough so that it will slide back down the string against a fairly strong wind after release of the parachute. The loops for supporting the carriage or body on the string should have large enough holes to be freely slidable on a kite string. The device illustrated in Fig. 5 includes a plastic body **1** having pushed out, integral portions **2** which have large openings **4** on each end forming a loop. The edges of the openings should be smooth so that the string **3** freely runs through the loops **2**. Diagonal slits **5** extending from the opening on side to the opening on the other side are provided on the loops so that the middle of the string may be threaded on the carriage without threading the end of the string through the loops. In this manner the carriage may be mounted on a string with the kite in the air. Obviously, the diagonal openings must be at such an angle to prevent the string from accidentally slipping out through the opening.

A parachute holder is mounted on the body **1** and it consists of a wire trigger portion **10** which includes a guide **11**. The guide is a loosely coiled end of the wire which may be easily threaded over the string without the necessity of passing the end of the string through the loops of the coiled guide. The end of the trigger **10** opposite the coil **11** has a reverse bend **12** ending in a short leg **13**. Guide loops **14** and **15** hold the trigger **10** in position on the carriage. The guide loops are made in a manner similar to the string loops, illustrated in Fig. 5, by pressing the plastic or metal out from the body and cutting holes in the ends to form the loop. The trigger is freely reciprocal in the guides **14** and **15**, and a stop **16** is positioned to limit travel of the trigger. The stop **16** may merely be a hump pushed out of the body, or an attachment secured to the body. The short leg **13** is freely reciprocal through another pair of loops **17** and **18**. The end **19** of the leg **13** just protrudes from the loop **18** when the trigger is against the stop **16** (open or parachute release position), and is telescoped within the guide **17** when the trigger is full forward in parachute holding position, indicated by the dashed lines **19**.

The parachute portion of the toy, Fig. 2, includes a loop or ring **20** which fits over the short leg **13** and held thereon when the trigger is pushed forward with the end **19** telescoped in the guide **17**. A weight **21** is attached to the loop, and a canopy **22** is attached by means of shrouds **23** to the weight or weight holding harness which is secured to the weight.

A stop or trigger release for the toy includes, Fig. 7, a rectangular portion **30** having two holes **31** and **32** extending through the mid portion of the body. A diagonal slit **33** extends from the hole **31** to the edge of the body, and a diagonal slit **34** extends from the hole **32** to the opposite side of the body **30**. The diagonal slits are at an angle to the string position, which is on a line from center to center of the holes. The release may be attached to the kite string by passing the string through the two slots into the holes and allowing the string to assume its natural position. If a tighter hold on the string is required, the string may be merely looped through the slots again forming a loop around the body securely holding it in any position on the line.

In using the toy of the invention, the release **30** is placed on the string at a point near the kite, preferably, however, at a sufficient distance to prevent entanglement of the dropped parachute with the kite or kite tail, thus a distance of eight or ten feet is usually satisfactory. The kite K, Fig. 1, is then flown in conventional manner to the desired height. The carriage **1** is then placed on the string with the guide **11** also encircling the string as illustrated in Fig. 3. The parachute holder is opened

by pushing the trigger back against the stop **16**. By holding the loop **20** of the parachute in between the guides **17** and **18**, the trigger is pulled forward trapping the loop on the short leg **13** between the guides **17** and **18**. The canopy **22** of the parachute is then permitted to billow in the wind, and on releasing the carriage the parachute pulls the carriage up along the kite string. When the coil **11** strikes the stop **30** the trigger is moved rearwardly against the stop **16** releasing the parachute to float to the earth, and the carriage slides back down the string to the operator. The parachute is retrieved, and it may then be reattached and the procedure started all over again. Several parachutes may, obviously, be used at the discretion of the user, and it is preferable to utilize brightly colored, light weight silk for the canopy, since it provides an easily seen parachute. The light weight silk billows effectively under light wind conditions pulling the carriage up to the release.

The modified carriage illustrated in Fig. 6 includes a body portion **40** having wire loops **41** in position to encircle the string and hold the body on a string. The loops may be secured in any desired way onto the body as by threading, nuts, welding, etc., and they may be made of any desired material which may be metal or plastic or the like, which is strong enough to support the body and to provide large loops for free movement of the carriage along the string. The trigger mechanism may be mounted in loops punched from the body, or it may be mounted in loops similar to the string holding loops **41**.

While the invention has been illustrated with reference to specific embodiment, there is no intent to limit the spirit or scope of the invention to precise details so set forth except insofar as defined in the following claim.

I claim:

A kite string supported toy of the class described comprising a thin, planar carriage, a pair of spaced apart integral loops formed by bulging out portions of said carriage and both extending outwardly from one surface thereof in position to suspend said carriage in balanced condition from a kite string, there being string accommodating diagonal slits through the top of each said loop to permit entry of a kite string into said loops and reciprocably suspend said carriage from a kite string, a series of integral trigger holding loops formed by bulging out additional portions of the carriage and extending outwardly from the opposite surface of said carriage forming guides for reciprocably holding a trigger, a wire trigger member reciprocably mounted in said loops and having an end portion extending beyond said carriage, said trigger member having a reverse bend portion forming a ring retainer arranged to move from a forward ring retaining position to a rearward release position on said carriage, the end of said wire extending beyond said body being coiled to loosely encompass a kite string and arranged to contact a stop and thereby be moved rearwardly in relation to said carriage, a parachute inclusive of an open canopy and attached harness shrouds, a ring secured to said harness shrouds and engageable with said ring retainer to be releasably held therein maintaining the canopy open to billow with the wind and pull the carriage along the kite string, two of said trigger loops being adjacent and spaced to accommodate said ring therebetween in position to support said reverse bend portion for releasably holding said ring, and a trigger release mounted at a predetermined point on the kite string to engage the coiled end of the trigger.

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