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H. H. BELL

1,738,347

TOY

Filed June 21, 1927

Fig. 1,

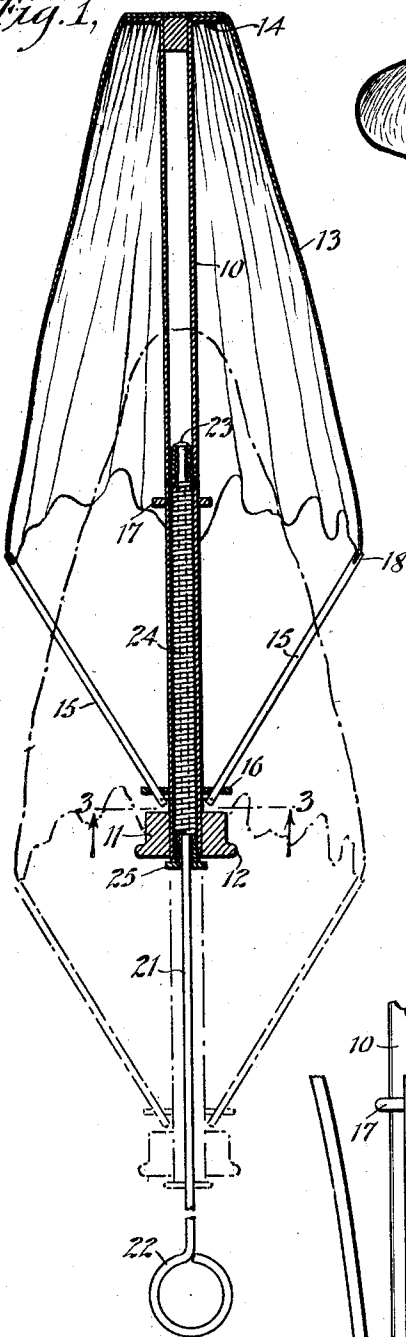
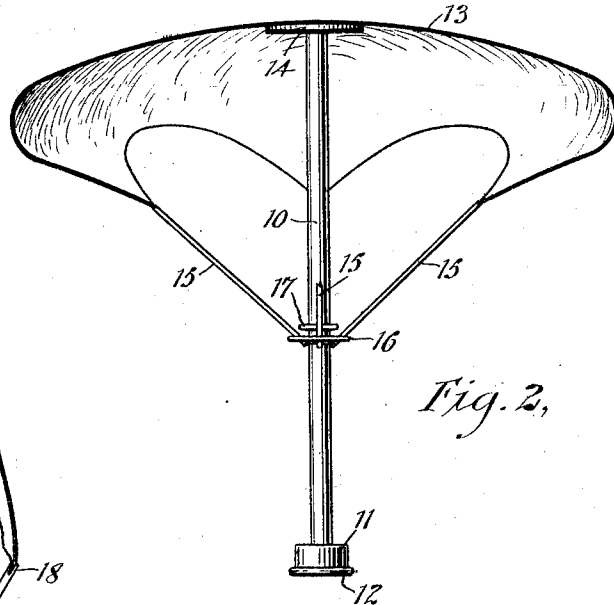


Fig. 2,

Fig. 3.

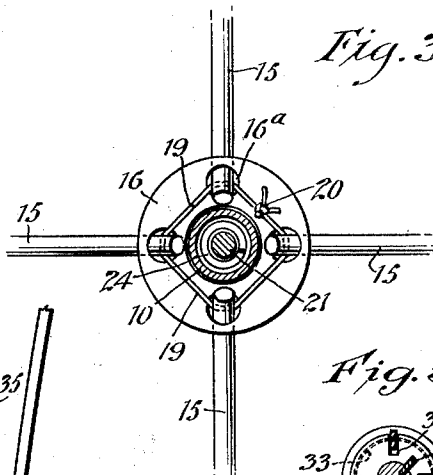


Fig. 5.

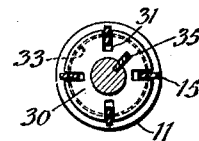
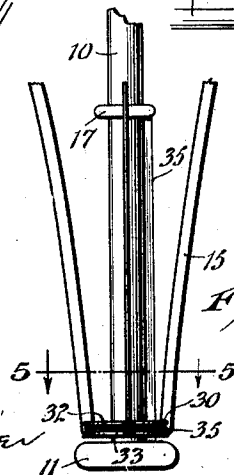


Fig. 4.



WITNESSES

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TOY

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The present invention is concerned with the provision of a toy primarily intended for the amusement and entertainment of children, and of the type which includes a manually operable projecting member and a projectile member adapted to be shot into the air thereby.

More specifically, the toy includes a parachute and a spring gun for projecting the parachute into the air. The parachute is so designed that it offers little air resistance when shot from the gun, and will rise to a considerable distance in the air. As soon as it starts to gravitationally descend however, it automatically opens out and floats lightly back to earth.

Primary objects of the invention are to provide a toy parachute and a toy projector of this character which will be of simple, practical construction, rugged and durable in use, neat and attractive in appearance, well suited to the requirements of economical manufacture, and capable of ready manipulation by a child.

With the above noted and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter set forth and pointed out in the claim. The invention may be more fully understood from the following description in connection with the accompanying drawings, wherein—

Fig. 1 is a view in longitudinal section through a toy embodying the present invention, the parachute being shown in place on the projector and the dotted lines indicating the relative positions of the parts when the spring has been tensioned prior to the discharge of the parachute.

Fig. 2 is a view in section through the parachute showing the latter bellied out and floating back to earth.

Fig. 3 is an enlarged transverse sectional detail on the line 3—3 of Fig. 1.

Fig. 4 is a fragmentary perspective view illustrating a slight modification in the method of attaching the stays to the slide ring.

Fig. 5 is a transverse sectional detail on the line 5—5 of Fig. 4.

In the drawings I have used the numeral 10 to designate a hollow stick provided at its lower end with a handle shown in the nature of a bushing 11 flanged at 12 so that it may be manually grasped for a purpose to be later described. The flexible parachute body 13 is secured at its central portion to the upper end of the hollow stick 11 by any suitable means, as for instance as by pasting it to the surface of the spreader plate 14 carried by the upper end of the hollow stick. Any suitable number of stays 15 preferably rigid, are secured at one end to the edges of the body 13, and at their other ends loosely connected to a slide ring 16 working on the stick between the bushing 11 and a stop shoulder 17.

It will be very apparent that numerous expedients might be resorted to for properly attaching the body to the stick and the stays to the body and slide. For the sake of illustration I have shown the stays slit at one end, and the edges of the body entered into the slits as at 18 where they may be secured by the inherent resiliency of the stays or by any other suitable means. The lower ends of the stays pass through relatively capacious openings 16^a in the slide ring 16, and are preferably all connected together by a flexible device 19 threaded through openings in the stay ends and knotted at 20.

The means, in the nature of a gun, which I have provided for shooting the parachute into the air, is of extremely simple construction. It may comprise simply a rod 21 in the nature of a straight length of wire bent at one end to provide a handle ring 22, and upset at its other end to provide a head 23 to which a coiled contractile spring 24 encircling the rod is anchored. The lower end of the spring 24 is connected to a stop 25 adapted to abut the member 12 when the gun is in use.

To operate the toy, the parachute is grasped by its handle 11, 12 and slipped over the headed end 23 of the gun, the diameter of the bore of the stick being sufficient to permit free sliding over the normally contracted coiled spring 24. Grasping the handle 22 with one hand, the handle 11 with the other hand, and holding the gun in substantially vertical position, the parachute may be slid over the gun to

approximately the dotted line position of Fig. 1, at which time the spring will be tensioned. Upon sudden release of the handle 11, the parachute will be shot high into the air. At this time, the air pressure will tend to maintain the body 13 collapsed and the slide ring 16 in its lowermost position shown in Fig. 1. When the parachute tends to descend however, the body bellies out, drawing the stays 15 and the slide ring 16 upwardly to an extent limited by the stop 17. Due to the additional weight provided by the handle member 11, there will be no danger of the parachute failing to come down right-side up; or in other words, no danger that the parachute may turn over in the air and descend without the body opening.

The spreader plate 14 is of material assistance in maintaining the upper end of the body somewhat bellied out so that it can catch the air.

In Figs. 4 and 5 I have illustrated a slight modification in which a slide ring 30 is substituted for the ring 16. Slide ring 30 is in the nature of a disc having a plurality of radially cut slots 31 therein and provided in its edge with an annular groove 32, the ends of the stays 15 are accommodated in slots 31 and a wire 33 disposed in the groove passes through openings in the ends of all of the stays. A key 35 arranged on the stick 10 between the stop ring 17 and the handle ring 11 prevents rotary movement of the slide ring and materially lessens the possibility of the parachute body twisting about the stick and failing to open.

Obviously, various changes and alterations might be made in the general form and arrangement of parts described without departing from the invention. Hence I do not wish to limit myself to the details set forth, but shall consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claim.

I claim:

A toy parachute including a stick, handle means at one end thereof, a flexible body secured at its intermediate portion to the other end of the stick, a ring mounted for limited sliding movement on the stick, and stays connecting the edges of the body to the ring, said stick having a plug in one end thereof to which the body is connected, and being open at its other end for telescoping over a projecting gun.

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