(No Model.)

C. DILLENBACK.

TOY PARACHUTE.

No. 456,944. Patented Aug. 4, 1891.

Fig. 1.

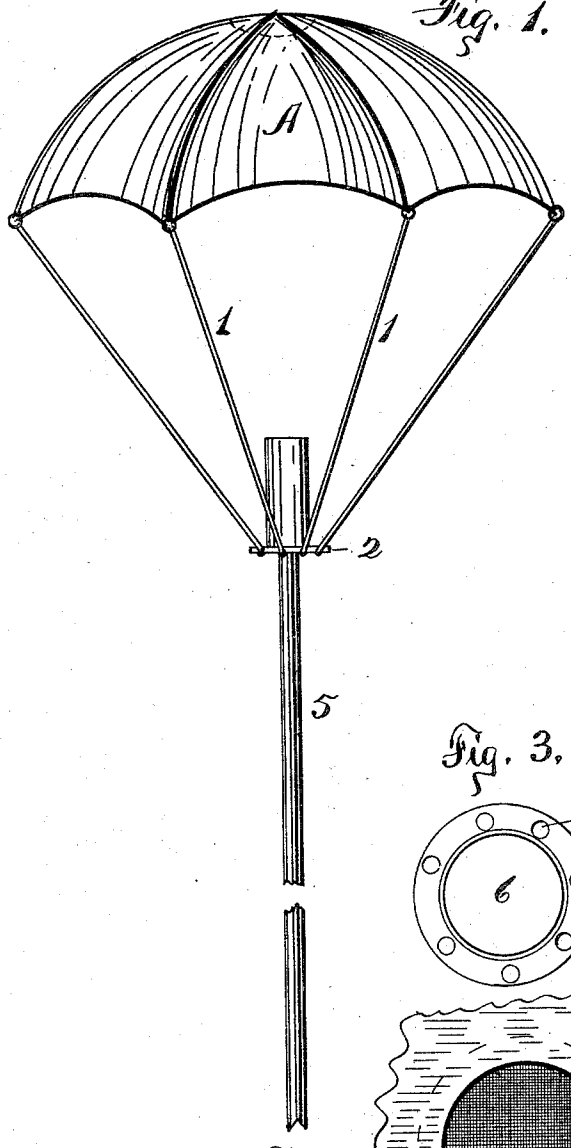


Fig. 2.

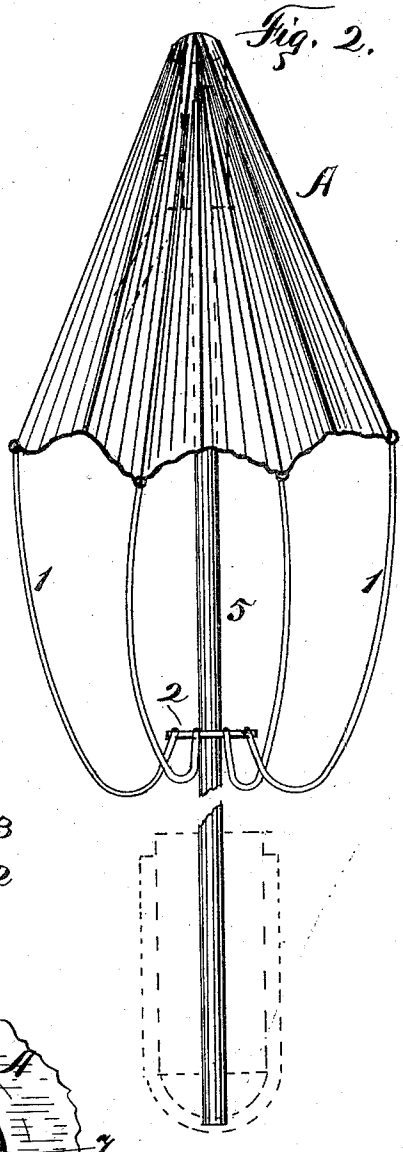
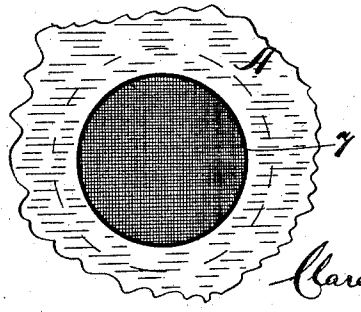


Fig. 3.

Fig. 4.



Witnesses

N. R. Denison

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Clarence Dillenback

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CLARENCE DILLENBACK, OF SYRACUSE, NEW YORK.

TOY PARACHUTE.

SPECIFICATION forming part of Letters Patent No. 456,944, dated August 4, 1891.

Application filed August 22, 1889. Serial No. 321,666. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE DILLENBACK, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Toy Parachutes, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to the construction of toy parachutes, and more especially to that class which are designed to be thrown into the air by means of any kind of a catapult.

My object is to improve the construction and operation of the parachute, causing it to open out sooner and with greater certainty, and to increase its durability.

My invention consists in the use of a sliding arrow connected to the parachute and adapted to operate as the counterbalance-weight when it is descending, and also bearing against the top as the means for projecting the parachute from the catapult. When the apex of the flight is reached, the arrow slides down through the ring until its head strikes it; then the ring carries the arrow, and the arrow is the balance; and in the other novel features of construction and operation hereinafter described, and set forth in the claims annexed. It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the parachute opened, as when descending. Fig. 2 is a like view of the same closed, ready to be projected, showing also in dotted lines a catapult. Fig. 3 is a plan view of the ring to which the lower ends of the cords are secured, and which fits around the stem of the arrow loosely. Fig. 4 is a plan view of a part of the top of the parachute, showing the cloth insertion, against which the head of the arrow bears when the parachute is projected.

A is the body, of ordinary convexity, and 1 1 are the cords or tapes connected at their upper ends to the points of the body and having their lower ends secured to the flat ring 2 by being tied through the holes 3 therein. The arrow 5 passes loosely through the central perforation 6 in the ring, except its head, which is too large to pass through. The ring is made light, as of paper or tin, and performs no function as a weight in the operation of the parachute, but simply operates as a guide for the arrow and to carry it as the parachute descends. The arrow performs the functions of directing the upward flight until the apex is reached, when it slides down through the ring, the head partially opening the body as it passes through and leaving it open at least the size of the head, so that it will readily catch the air and will quickly and certainly spread open, and when the head reaches the ring the arrow acts as the counterbalance-weight. The top of the body is cut out in the center and a piece of cloth 7 is secured therein, forming a center piece, against which the head of the arrow bears. This protects the center from being torn by the arrow, especially when the body is constructed of tender material—such as light paper—and needs a re-enforcement.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A toy parachute consisting of a body re-enforced with cloth, a ring dependent from the body upon cords connected to it and the body, and an arrow sliding loosely through the ring and provided with a head larger than the opening in the ring, substantially as described.

2. An arrow fitting loosely through a ring suspended from a parachute-body, having its head engaging with the body in the upward flight of the parachute and sliding through and suspended from the ring in the downward flight, in combination with the body and ring and cords connecting the same, as set forth.

3. The combination of a toy parachute-top with an arrow or missile for supporting the same in its upward flight, said arrow being detachably connected to the parachute-top, so as to fall clear of the top when the parachute reaches the limit of its upward flight and be thereafter pendent therefrom in its downward flight.

In witness whereof I have hereunto set my hand this 30th day of July, 1889.

CLARENCE DILLENBACK.

In presence of—

H. P. DENISON,

C. W. SMITH.