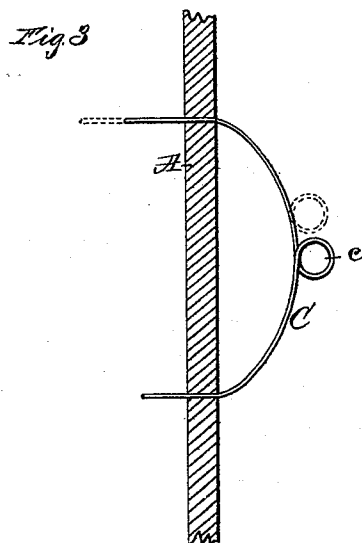
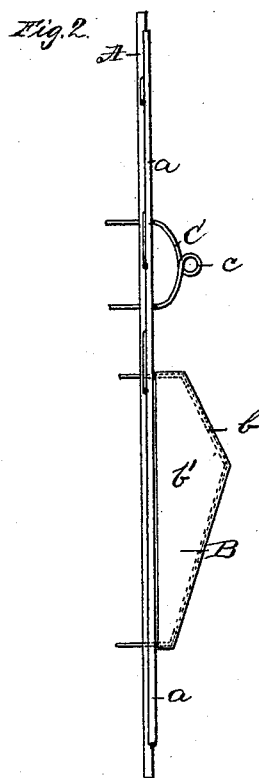
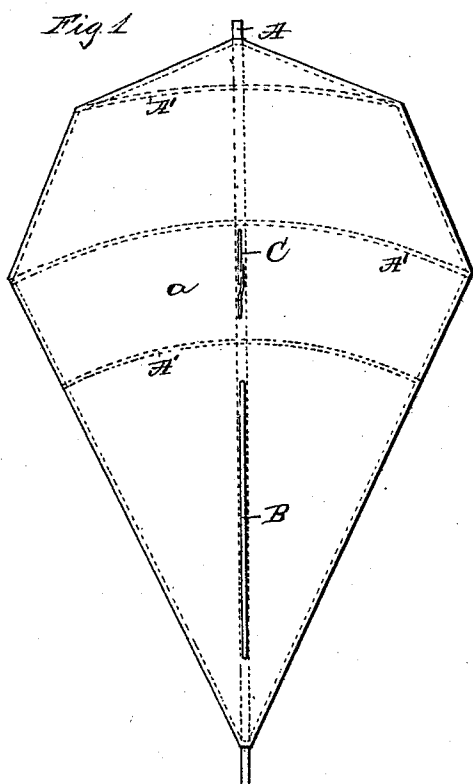


(No Model.)

E. S. BOYNTON.
TOY KITE.

No. 498,379.

Patented May 30, 1893.



Witnesses

Jan. E. Warner
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UNITED STATES PATENT OFFICE.

EDWARD S. BOYNTON, OF BROOKLYN, NEW YORK, ASSIGNOR TO E. T. WILKINSON, OF SAME PLACE.

TOY KITE.

SPECIFICATION forming part of Letters Patent No. 498,379, dated May 30, 1893.

Application filed December 8, 1890. Serial No. 373,883. (No model.)

To all whom it may concern:

Be it known that I, EDWARD S. BOYNTON, of the city of Brooklyn, county of Kings, and State of New York, have invented certain new
5 Improvements in Kites, of which the following is a specification.

This invention relates to toy kites, and it consists in providing the kite with what I here term a keel or fin; shorter than the kite
10 and attached thereto at its lower end only.

It further consists in an adjustable bail for attaching a string to the kite and it further consists in the construction and novel arrangement of parts as hereinafter set forth.

15 In the accompanying drawings Figure 1, is a front view of a kite showing my improvement. Fig. 2, is an edge view thereof, and Fig. 3, is a detail, showing the adjustable bail.

Referring by letter to the drawings, A designates the main rib, preferably of light material, such as wood, and it may be round or
20 half round in cross-section.

A' designates cross stays, consisting preferably of light metal rods or wires inserted
25 through holes in the rib A. These stays A' may be slightly curved downward or bowed and the said stays may consist of rattan, without departing from the main construction.

30 The rib A and the stays constitute the frame of the kite. The body *a* may be secured to the frame in any desired manner, such for instance as tacking it to the main rib and sewing or lashing to the stays. The
35 body may be of any desired material, but I find a light cloth a serviceable material.

In ordinary kites it is the practice to attach a long "tail" to the lower portion, but in my invention I dispense with the tail, which is
40 objectionable for the reason that it is liable to catch in trees, wires, &c. In place of the tail I provide a keel or fin B, at the lower portion of the body, which consists of a frame
45 of wire or analogous material, having its ends extended through perforations in the rib A in such manner that the keel will stand at right angles to the plane of the kite body and lengthwise of the kite. The body *b'* of
50 the keel may be of muslin, paper or similar material, secured to the frame *b* by sewing. For the convenience of packing for shipment

the keel may be removable from the rib A, although when in position for use it will be secured by its frame against movement relatively to the kite body. 55

It will be understood that when the kite is raised by the wind the keel projecting in the direction of the force of the wind will steady and balance the kite.

C is an adjustable removable bail by means 60 of which a string may be attached to the kite. This bail is located above the keel or fin B and consists of resilient wire, having its ends projected through holes in the rib A, the holes being so close together that the wire 65 is bowed so that it is held in position by the expansion of the spring. A string attaching device or eye *c* is provided in the central portion of the bail to receive a string or cord, and owing to the spring bearing of the bail 70 against the walls of the holes in the rib it is not found necessary to otherwise attach the string or cord to the kite body. As the ends of the bail slide loosely in the holes it is obvious that the bail may be turned to bring 75 the eye *c* closer to the kite body so that the line of draft upon the string may be changed to accommodate the pitch of the kite. The bail may be wholly removed when desired.

Having described my invention, what I 80 claim is—

1. In a kite, the combination with a frame and body portion, of a keel or fin shorter than the kite attached thereto at its lower end only, and a string attaching device above the 85 keel secured to the kite frame.

2. In a kite, the combination of a frame and a flat body portion attached thereto, a keel or fin shorter than the kite attached to the lower end only of the frame, and projecting laterally therefrom, and a string attaching device secured to the kite body above the keel and below the top of the kite frame. 90

3. In a kite, the combination of a frame, a body attached thereto, a keel or fin shorter 95 than the kite, and projecting at right angles from the body portion at the lower end of the kite, and a string attaching device secured to the upper end.

4. The combination with the kite frame, of 100 a bail of semi-flexible material, such as wire, adjustable at its inner ends in the frame and

having a ring or loop to which the string is attached moved vertically by the adjustment of the bail.

5 5. The combination of the kite frame, a wire bail having its inner ends extending transversely through the frame and adjustable therein and provided with a loop or eye on that portion of the bail connecting the end pieces moved vertically by the transverse adjustment of the ends of the bail.

10 6. The combination of the central main

rib, transverse wire stays extending through the central rib, a body portion of light cloth secured to the central rib and stays, a keel or fin removably secured to the central rib, and 15 an adjustable bail secured to the rib above the fin.

EDWARD S. BOYNTON.

Witnesses:

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