

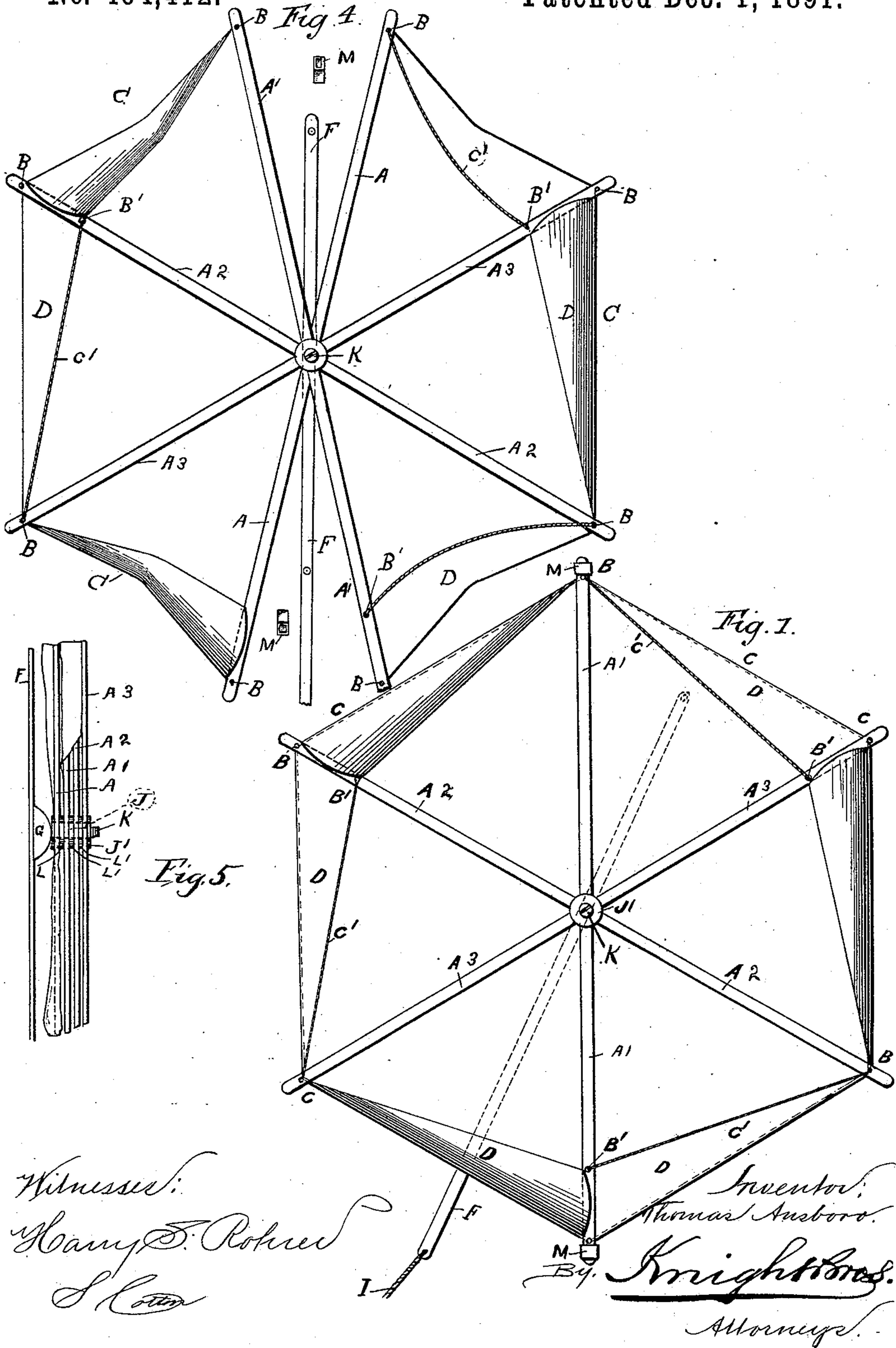
(No Model.)

2 Sheets—Sheet 1.

T. ANSBORO.
KITE.

No. 464,412.

Patented Dec. 1, 1891.



Witnesses:
Hiram S. Roberts
S. Cotton

Inventor:
Thomas Ansboro.
By Knight & Sons.
Attorneys.

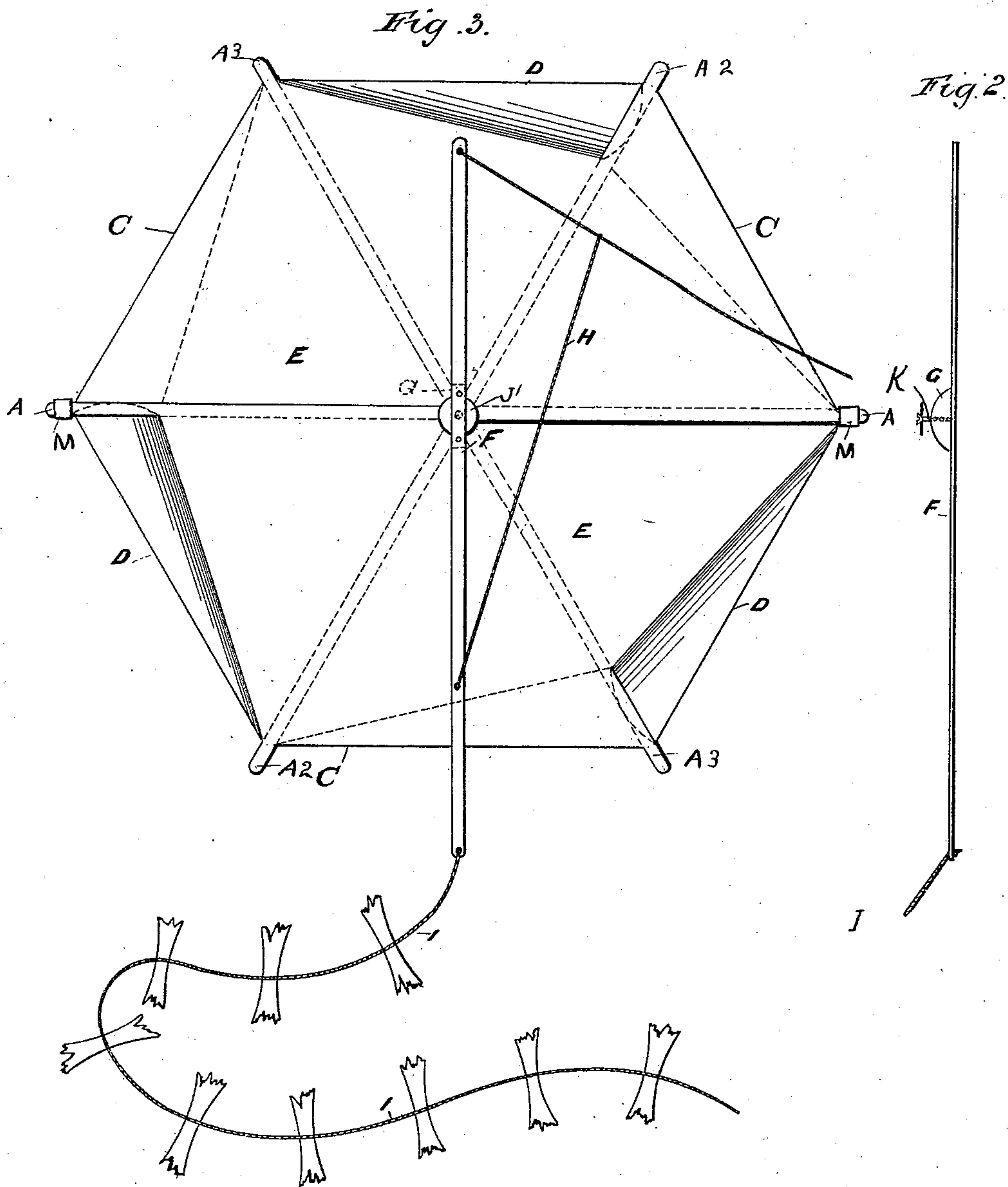
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2 Sheets—Sheet 2.

T. ANSBORO.
KITE.

No. 464,412.

Patented Dec. 1, 1891.



Witnesses:

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S. Cotton

Inventor:
Thomas Ansboro.

By Knight Bros.
Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS ANSBORO, OF GLASGOW, SCOTLAND, ASSIGNOR OF ONE-HALF TO
JOHN LIDDLE, OF SAME PLACE.

KITE.

SPECIFICATION forming part of Letters Patent No. 464,412, dated December 1, 1891.

Application filed June 6, 1891. Serial No. 395,399. (No model.)

To all whom it may concern:

Be it known that I, THOMAS ANSBORO, gentleman, a subject of the Queen of Great Britain, residing at 277 Swanston Street, Bridgeton, Glasgow, in the county of Lanark, North Britain, have invented a new and Improved Revolving Kite, of which the following is a specification.

My invention relates, first, to a new and improved revolving kite; and my invention relates, further, to a folding or collapsible kite.

I will first describe my invention with reference to the accompanying drawings, and then more particularly point out in the claims what I deem as new therein.

In said drawings, Figure 1 is a back view of the kite. Fig. 2 is a side view of the lath or strip on which the belly-band and tail are secured. Fig. 3 is a front view of the kite. Fig. 4 is a view similar to Fig. 1, showing the kite partly folded. Fig. 5 is a detail side elevation of my improved kite in folded position, parts being broken away.

I take laths or strips $A A' A^2 A^3$, of wood or other suitable material, of equal length, at the extreme ends of each of which I make a hole B, and a little nearer the center of every alternate lath I make other small holes B' , which are equally distant from those at the end. With these laths $A A' A^2 A^3$, I make a skeleton frame-work by crossing and pivotally fastening them at the center by means of a tubular spindle J, (shown by dotted lines in Fig. 5,) which is passed through the central pivot-holes of the strips and provided at its opposite ends with washers J' , secured to the spindle by flanging its ends, the washers holding the sticks upon the spindle. I then encircle each half of the frame-work with a thin cord C by passing it through the more distant holes B, so as to form equal halves of a geometrical figure, such as a regular hexagon, which will fold in upon each other, as and for the purpose presently to be explained.

One of the cords C passes from one end of the strips A, through one end of each of the strips A^3, A^2 and A' , respectively, ending in the strip A' , and the other cord C passes from the opposite end of the strip A' through the opposite ends of the strips A^2, A^3 , and A, respectively, ending in the strip A. I next pass cords

C' through the holes B and B' alternately, as follows, namely: through the remote hole B in one end of the lath A to the inner hole B' near one end of the lath A^3 , then to the remote hole B in the lath A^2 , and finally through the inner hole B' at the opposite end of lath A. I repeat this in regular succession through the other half or section of frame-work till the whole frame-work is encircled with a number of equal triangular-shaped spaces D, corresponding in number to the sides in the entire geometrical figure. I then cover tightly the two sections of the kite, saving every alternate triangular-shaped space D, with some close light material, such as cloth, silk, or paper, and the alternate triangular-shaped spaces I cover with similar material; but in this latter case it is not drawn tight, but allowed to drop between the opening of the cords, so as to form a sort of semi-conical pocket D' , as shown in Figs. 3 and 4. I next take another lath or strip of wood F or other suitable material of somewhat similar length to those in the frame, and to one side I fix at a point a little nearer one end a projecting block G, which may be made of light wood or other material. To the opposite side of this lath I attach the usual belly-band H of a kite and to the longer arm of the same the usual sort of kite-tails I. I next pass a pin or screw K (preferably a screw) through the hollow spindle J and screw or otherwise secure it into the block G and the kite is complete, the body being supported upon the strip F so as to revolve.

The attachment between the body of the kite and the spindle is made so that the block G is between the body and the exposed lath F to afford a clearance, and the wind which presses against the inclined surface of encircling pockets causes the body of the kite to revolve on the spindle.

In order that the kite may be compressed into little bulk and so take up less room in being packed for transit, I arrange the central strips $A A'$ with a thin light washer L, of wood or other suitable material, placed between them, so that they will fold in upon each other and also cover the body of the kite in two sections, as already described, so that the strips may be revolved on the spin-

dle J and folded into compact form, similar washers L' being likewise placed between the other laths or strips to allow a clearance for folding.

5 M M are metal caps adapted to fit over the ends of the strips A and A' when the kite is spread open and hold both halves of the kite in expanded position. When the kite is to be
10 are separated at their ends by removing the caps M, as seen in Fig. 4, and the kite folded as shown in Fig. 5, and thereby takes up very little room. When it is again desired to use
15 the kite, the two central strips are brought together again and kept in position by means of the caps placed over their ends. The face of the kite may likewise have a device—such as a spiral—colored on it, which will give an optical illusion of wave-like motion of its own
20 as the body of the kite revolves.

It is obvious that a revolving kite could be constructed without the folding or collapsible feature and still be within the scope of my invention, and also that a collapsible kite
25 could be constructed without the rotating feature without departing from the scope of my invention; but I prefer to combine the features as shown in the drawings.

Having thus described my invention, the
30 following is what I claim as new therein and desire to secure by Letters Patent:

1. A revolving kite consisting, essentially, of a strip or support, such as F, and a body rotatably attached to said support, substan-
35 tially as set forth.

2. The combination of the strip F, the belly-band and kite-tail attached to said strip, and a suitable kite-body rotatably attached to said strip, substantially as set forth.

40 3. The combination of the strip F, the kite-body, the tubular spindle passing through said body, and a pivot-pin or screw passing through said tubular spindle and attached to the strip F for rotatably supporting the body,
45 substantially as set forth.

4. The combination of the strip F, the kite frame or body constructed of suitable strips and a covering material, a hollow spindle passing through said strips for holding them
50 together, and a pivot-pin or screw passing through said tubular spindle and attached to the strip F, substantially as set forth.

5. The combination, in a revolving kite, of the strip F, having the block G secured there-
55 to, the kite-frame covered with any suitable

material, and a suitable pivotal connection between said frame and the block G, as set forth.

6. The combination of a suitable strip or support, such as F, a kite-frame rotatably at- 60 tached to said support, a suitable covering on said frame, and semi-conical pockets formed in said covering, substantially as set forth.

7. The combination of a suitable strip or support, such as F, a kite-frame formed of 65 suitable strips rotatably attached to said support, a cord C, passing around the ends of said strips, a cord C', also passing around the kite-frame and attached alternately to the ends and points inside the ends of the strips, 70 semi-conical pockets supported in the triangular spaces formed between the cords C and C', and a suitable covering stretched over the remainder of the kite-frame, substantially as set forth.

8. A folding kite consisting, essentially, of a series of crossing strips pivoted together at or near their centers and provided with a suitable covering, said covering being divided 75 into two parts and said parts being applied 80 to the opposite ends of said crossing strips, substantially as set forth.

9. A folding kite consisting of a series of crossing strips pivoted together at or near their centers, and a divided covering applied 85 to said crossing strips to form two separable folding kite-sections, substantially as herein set forth.

10. A folding kite consisting of a series of crossing strips pivoted together at or near 90 their centers and having two separate cords connecting their adjacent ends on separate sides of the kite-frame, and a divided covering for said kite-frame, substantially as set forth. 95

11. A folding kite consisting of the cross- ing strips A, A', A², and A³, pivoted together at or near their centers, a divided covering for said kite-frame, and suitable caps M for holding the kite in expanded position, said 100 caps being adapted to engage the adjacent ends of the strips A A', as herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS ANSBORO.

Witnesses:

JOSEPH HENRY PEARSON,

ARTHUR HARTLEY YUILE,

Both of 154 St. Vincent Street, Glasgow.