March 24, 1953 W. G. BODELL 2,632,614

FLYING SAUCER KITE

Filed Oct. 7, 1950

FIG. 1

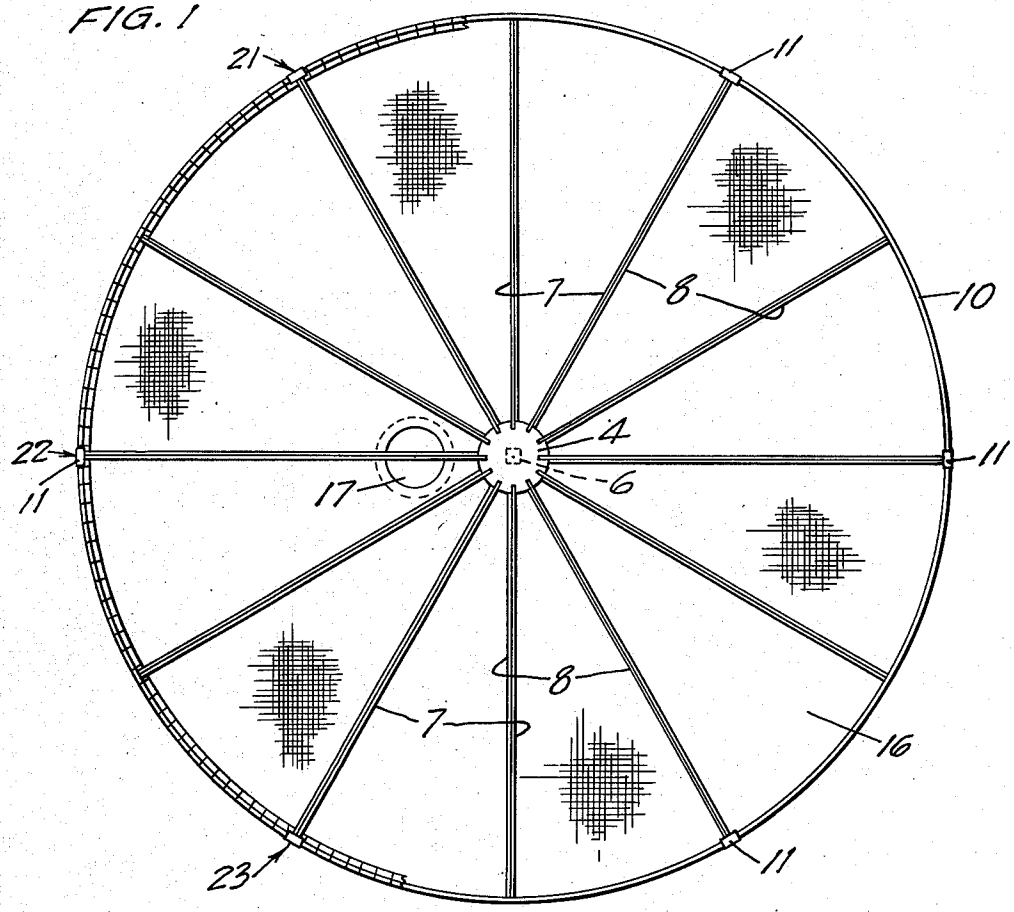
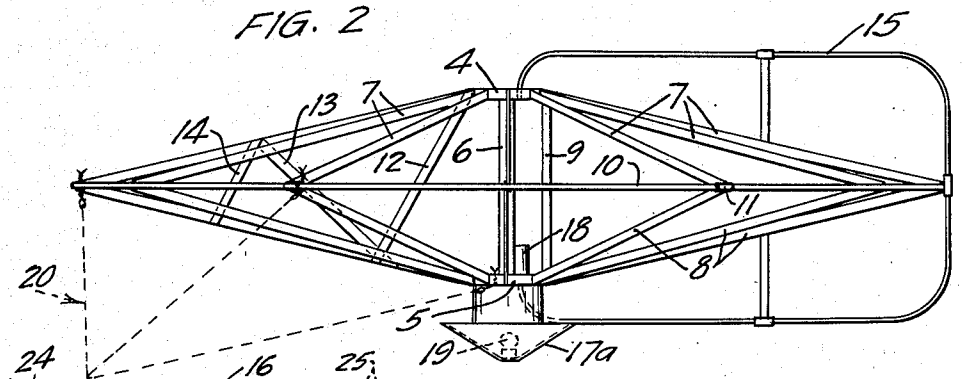


FIG. 2



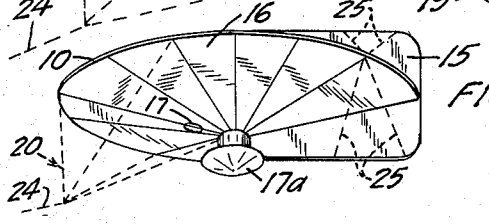


FIG. 3

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Patented Mar. 24, 1953 2,632,614

UNITED STATES PATENT OFFICE

2,632,614

FLYING SAUCER KITE

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Application October 7, 1950, Serial No. 188,973

7 Claims. (Cl. 244—153)

1

This invention relates generally to kites adapted to be flown and particularly to a kite having a substantially circular periphery.

It is an object of my invention to provide a novel and improved extremely ingenious kite adapted to be flown in relatively light winds and to rise to relatively high altitudes.

It is another object to provide a kite adapted to be flown and having a substantially circular periphery with a somewhat elongated hub at the center thereof and having a plurality of struts lying in planes disposed radially of the hub and inter-connecting the hub with the peripheral ring of the frame.

More specifically, in the form shown, it is an object to provide a double conical frame slightly truncated at the vertices thereof and having an imperforate covering stretched across the lower frame structure with means for stabilizing the kite when it is flown.

Still more specifically it is an object to provide a kite having a double conical frame with an imperforate covering stretched across the lower frame structure, said imperforate covering having a single aperture formed therein and a stabilizing fin fixed to said frame and disposed in a plane extending diametrically across the kite through the central hub thereof and bisecting said aperture.

These and other objects and advantages of my invention will more fully appear from the following description made in connection with the accompanying drawings wherein like reference characters refer to similar parts throughout the several views, in which:

Fig. 1 is a top plan view of my new kite;

Fig. 2 is a front elevational view of the kite shown in Fig. 1 with the covering removed; and

Fig. 3 is a perspective view showing the lower portion of the kite.

As illustrated in the accompanying drawings I provide a kite having a relatively rigid frame structure which, in the form shown, is in the shape of a double conical figure in which the cones are relatively flat and have coincident base structures and in which the vertices thereof are slightly truncated as best shown in Fig. 2.

This frame has a pair of spaced disks 4 and 5 fixed at the respective vertices of the two slightly truncated frame sections. These disks 4 and 5 are rigidly fixed to a central pin 6 which combines with the disks 4 and 5 to form a central hub for the frame structure. A plurality of strut members 7 extend radially outwardly from the top hub disk 4 to the circular ring 10 and

2

are fixed thereto at their outer ends in any suitable manner such as being cemented thereto or connected thereto by the short sleeve sections 11. Similarly spaced struts 8 extend outwardly from the lower hub disk 5 and are similarly fixed to said peripheral ring 10.

An upstanding strut member 9 is interposed between the inner ends of two radial struts 7 and 8 lying in a diametrically disposed plane. A bracing truss, consisting of the three truss members 12, 13 and 14, interconnects the radially disposed struts 7 and 8 lying in said diametrically opposed plane.

A stabilizing fin or vane structure lying in said plane and extending above the upper frame structure and below the lower frame structure is fixed thereto and is designated as an entirety by the numeral 15. The fin structure 15 has a peripherally disposed frame extending from the hub substantially horizontally outwardly to the radial extent of the ring 10 and is joined thereto by a vertically disposed element forming a substantially vertically disposed fin or rudder.

A covering 16 is stretched across the bottom surface of the lower conical frame to produce a thin concave body of dish shape. This cover 16 is imperforate except for a single aperture 17 which is formed therein and is bisected by the diametrically disposed plane through the stabilizing fin 15 and the truss made up of members 12, 13 and 14, and is disposed eccentrically of the kite hub on the opposite side thereof from the stabilizing fin structure 15. The fin 15 is covered with an imperforate material to produce a necessary stabilizing effect. In addition to this covering on the fin, the triangular section formed by the strut member 9 and the two radially disposed struts 7 and 8 fixed to said strut 9, is also covered with imperforate sheet material and, of course, this covering lies in the same plane as the fin structure 15.

In the form shown, an electric light having a reflector 17a is mounted on the bottom hub disk 5 in slightly spaced relation thereto and is supported by any suitable means such as a hollow, relatively short, cylindrical frame structure covered with imperforate material. A battery 18 supplies the current to the incandescent bulb 19 to illuminate the under side of the kite when flown at night.

A bridle 20 is connected to the under side of the kite, as best shown in Fig. 3. This bridle 20 is connected at three equally spaced points to the peripheral ring 10 and is also connected at the center hub of the kite to the lower disk 5. In

the form shown this bridle is connected at the points designated by the numerals 21, 22 and 23, as best shown in Fig. 1. This bridle permits attachment of the anchoring line or cord 24, as best shown in Fig. 3. The suitable tension braces such as the flexible members 25 are provided to hold the fin structure 15 in relatively stable position.

When the kite is being flown the aperture 17 permits the air to flow upwardly therethrough and thus produce increased stability of the entire kite structure. The fin structure 15 disposed in diametrically arranged position on the other side of the hub from said aperture 17 and serves to resist to a large extent the back and forth swinging movement that would be produced without said fin structure. I have found that this particular position of the aperture bisected by the plane of the fin structure and formed in the opposite side of the hub in close proximity thereto produces an extremely stable and easy kite to fly. There will, of course, be some back and forth swinging movement of the kite but this swinging movement will not be sufficient to disturb the lift produced on the upper side thereof, as it would be without the stabilizing effect of the aperture and the fin structure.

It will be seen that I have provided a relatively simple yet highly efficient kite structure adapted to be easily flown and to rise into the air with a slight back and forth swinging movement. It is entirely conceivable that the frame thereof could be concavely dished but for easy manufacture a double conical shape is somewhat simpler to construct.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the parts without departing from the scope of my invention.

What I claim is:

1. A kite comprising a frame portion having a substantially circular periphery and formed in two sections spaced apart at the center thereof and converging outwardly to join at the circular periphery thereof, covering means for the bottom section of said frame, said covering means being imperforate except for an eccentric aperture formed therethrough to permit air to flow from the bottom to the top of the kite.

2. A kite comprising a frame structure constructed of two substantially conical sections having coincident base portions, a covering for the bottom conical section, said covering being imperforate except for a single aperture formed therein to permit the flow of air upwardly therethrough and stabilize the kite while it is being flown.

3. A kite comprising a frame structure having

substantially circular periphery and materially thickened at the central portion thereof to form two sections spaced apart at the center and joined at the periphery, a cover stretched across the bottom frame structure, said cover being imperforate except for an opening formed therein, a substantially imperforate fin structure mounted on said frame and disposed at substantially right angles to a plane through the circular periphery of said frame.

4. A kite comprising a frame having a substantially circular periphery and formed in two sections, the central portions of said sections being spaced apart and the peripheral portions thereof being joined, the bottom frame section being covered, said covering being imperforate except for a single aperture eccentrically formed therein, a fin structure lying in a plane bisecting said aperture on the opposite side of the kite centre, the plane of said fin being disposed at substantially right angles to a plane through a periphery of said frame.

5. A kite comprising a thin circular concave body of dish shape, said body having an eccentrically disposed aperture formed therethrough, a substantially vertically disposed fin lying in a plane disposed radially of said body and terminating substantially at the circumference thereof and extending outwardly from the center of said body on the opposite side thereof from said aperture.

6. The structure set forth in claim 5 and means on the opposite side of said body from said fin for connecting said body to a flexible anchoring member.

7. The structure set forth in claim 5 and said fin extending vertically upwardly as well as downwardly from the lower surface of said body.

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