June 21, 1932. L. E. JOHNSON 1,864,197

KITE

Filed May 28, 1931

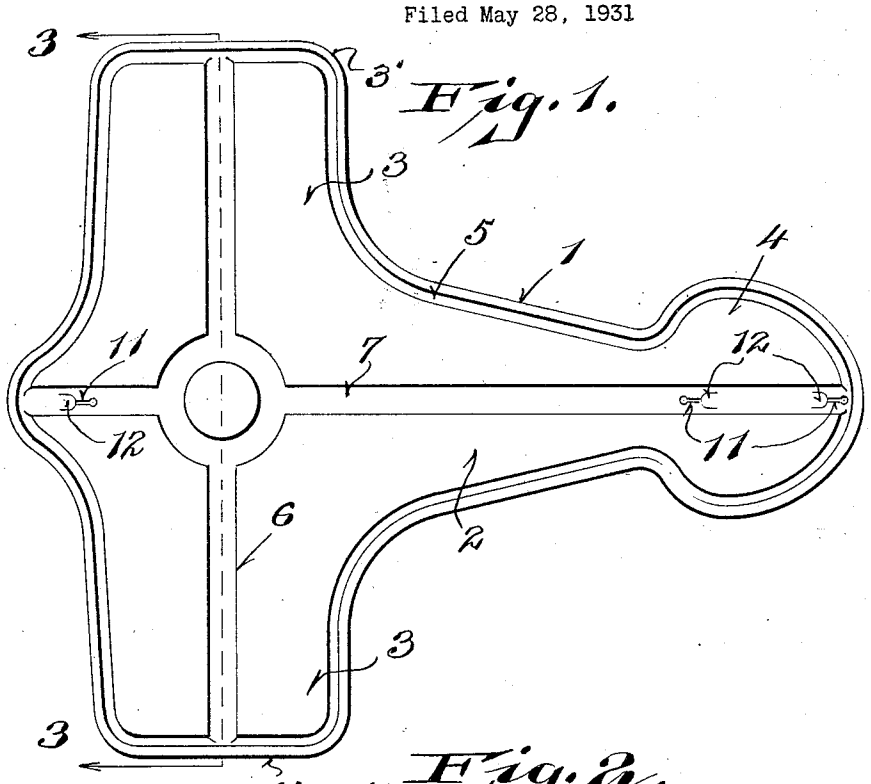


Fig. 1.

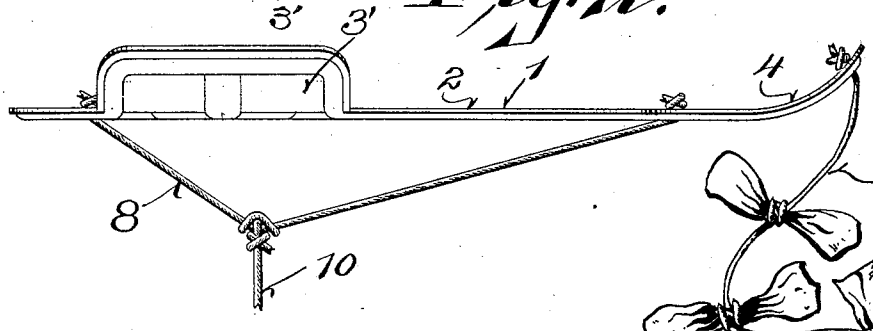
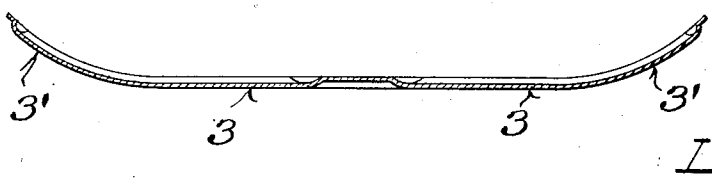


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE

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KITE

Application filed May 28, 1931. Serial No. 540,553.

This invention pertains to kites, and has primarily for its object to provide an exceedingly durable inexpensive, and attractive kite simulating an aeroplane in contour, and formed from a single blank of comparatively light flexible metallic material.

Incidental to the foregoing, a more specific object resides in the provision of a kite of the foregoing character comprising an elongated body portion having lateral wings projecting therefrom adjacent its forward end and terminating in an enlarged stabilizing surface at its rear end, the extremities of the wings and stabilizing surface being curved upwardly to provide air foils for properly holding the kite in the wind.

A still further object is to provide a kite, as set forth, with marginal, transverse, and longitudinal ribs, which serve to add rigidity to the relatively thin material from which the kite is formed without eliminating a certain desired amount of flexibility.

A still further object resides in the novel means provided for attachment of the retaining and tail cords.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the novel construction, combination, and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

In the accompanying drawing is illustrated one complete example of the physical embodiment of the present invention constructed according to the best mode so far devised for the practical application of the principles thereof.

In the drawing, Figure 1 is a plan elevation of a kite constructed in accordance with the present invention;

Figure 2 is a side elevation with the retaining cord and tail piece attached to the kite; and

Figure 3 is a transverse section taken on the line 3—3 of Figure 1.

Referring now more particularly to the accompanying drawing, the kite designated by the numeral 1 is formed from a single blank of relatively light, flexible metallic material, such as aluminum and the like, and comprising a longitudinally elongated body portion 2, from which the wings 3 project laterally and terminate in upwardly curved portions 3′.

From the wings 3, the body portion tapers rearwardly and terminates in an enlarged stabilizing surface 4, the rear end of which is curved upwardly and cooperates with the curved ends 3′ of the wings to provide air foils for properly holding the kite in the wind to sustain its flight.

It has been found in actual practice that a kite constructed in accordance with the foregoing cannot be sustained in flight without curving the ends of the wings and stabilizing surface upwardly, and while various theories may be advanced in explanation of this fact, it is believed that the same is due to the fact that the curved portions of the wing and stabilizer serve to shed the wind at the spaced extremities of the kite, thus enabling it to overcome the tendency to dive, and maintain the necessary equilibrium and position to sustain desired flight.

Inasmuch as the kite is necessarily formed from exceedingly light material, the same is provided with a marginal web 5, which materially stiffens the edge of the blank and prevents mutilation and damage, which would otherwise occur upon engagement of the kite with the ground or other obstacles. In addition to the marginal web, the wings and body portion are also provided with a transverse web 6 and a longitudinal web 7, respectively, thus adding rigidity to the blank in both directions without entirely eliminating flexibility. This is highly desirable, in that a certain amount of flexure in the extended body portion and the wings serve to absorb and shed uneven gusts of wind, which action results in steady rather than jerky flight of the kite.

In flying a kite of the foregoing structure, the usual rigging is employed, namely, a loose retaining cord 8 is secured longitudinally and centrally of the kite adjacent its

front and rear ends, while the usual tail-piece 9 is fastened to the rear of the stabilizing surface 4. The anchor cord 10 is knotted to the retaining cord 8 intermediate its ends, and preferably adjacent the forward end of the kite, causing the same to assume a desired angular position in flight.

To facilitate attachment of the retaining cord and the tail-piece, the blank is provided with a plurality of aligned spaced bayonet slots 11 for reception of the knotted ends of said cords, and in order to retain the cords within the bayonet slots 11, and also facilitate assembling or detachment, tongues 12 are formed adjacent the restricted ends of the slots 11 by slitting the material. These tongues may be bent upwardly to either insert or remove the knotted ends of the cords through the blank, after which they may be bent downwardly to securely retain the same.

From the foregoing explanation taken in connection with the accompanying drawing, it will be quite apparent that an exceedingly durable, inexpensive, and attractive kite has been provided, which because of its novel shape and similarity to a conventional aeroplane, will readily appeal to children, and which because of its novel structural features is capable of maintaining steady flight in either comparatively light or heavy winds.

I claim:

1. A kite formed from a single blank of comparatively light metallic material and comprising an elongated body portion having lateral projecting wings adjacent its forward end, and terminating in an enlarged stabilizing surface at its rear end, said blank being provided with marginal, transverse and longitudinal webs.

2. A kite formed from a single blank of comparatively light metallic material and comprising an elongated body portion having lateral projecting wings adjacent its forward end, and terminating in an enlarged stabilizing surface at its rear end, the blank being provided with marginal, transverse, and longitudinal webs, while the extremities of the wings and stabilizing surface are curved upwardly.

3. A kite formed from a single blank of comparatively light metallic material and comprising an elongated body portion having laterally projecting wings adjacent its forward end and terminating in an enlarged stabilizing surface at its rear end, spaced aligned bayonet slots formed centrally of the blank for reception of knotted cords, and tongues formed in the blank adjacent the restricted ends of said slots by slitting the blank.

4. A kite formed from a single blank of comparatively light metallic material and comprising an elongated body portion having laterally projecting wings and terminating in an enlarged stabilizing surface at its rear end, said blank being provided with a marginal web, a transverse web formed centrally of the lateral wings, and a longitudinal central web, said central web having bayonet slots formed therein, and bendable tongues adjacent the restricted ends of said slots formed by slitting the material, the extremities of said wings and stabilizing surface being curved upwardly.

In testimony that I claim the foregoing I have hereunto set my hand at Manitowoc, in the county of Manitowoc and State of Wisconsin.

LLOYD E. JOHNSON.