Aug. 29, 1950 B. B. WISNEY 2,520,704

KITE

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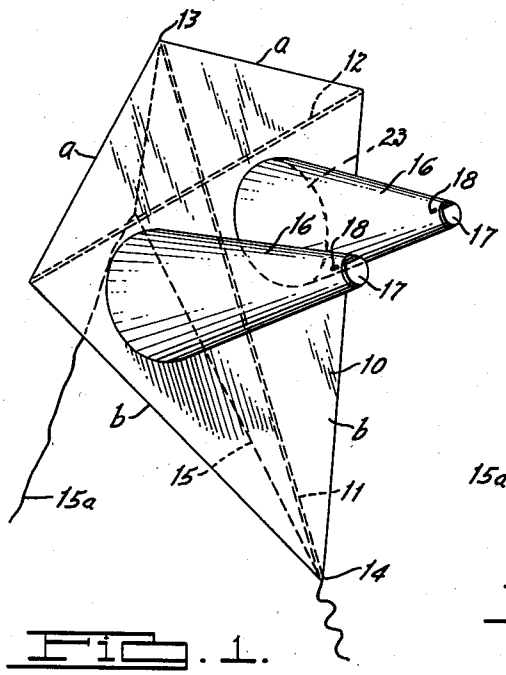


Fig. 1.

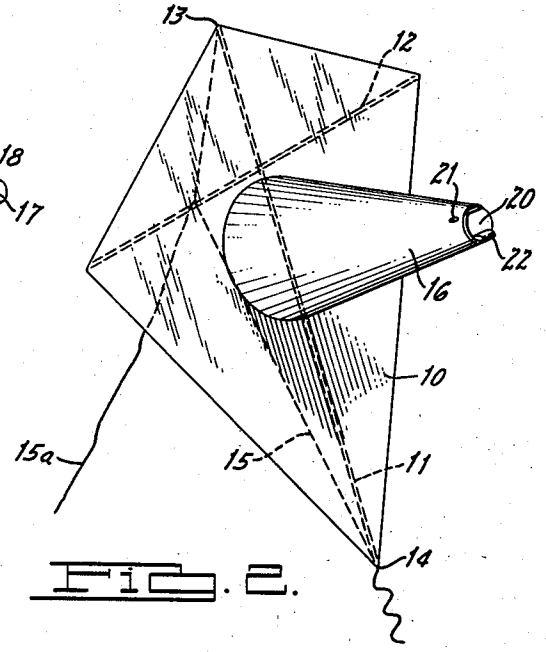


Fig. 2.

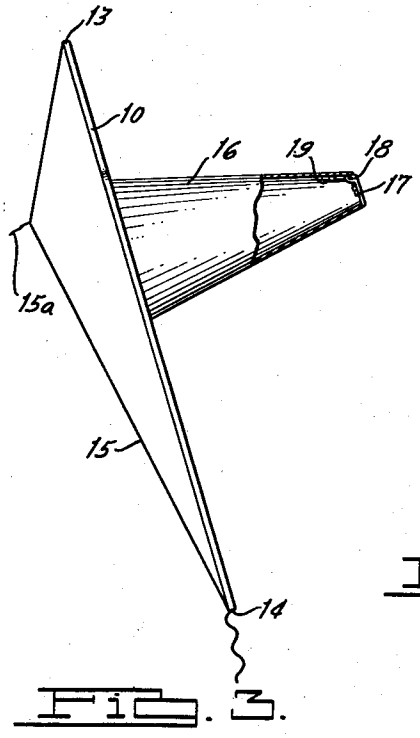


Fig. 3.

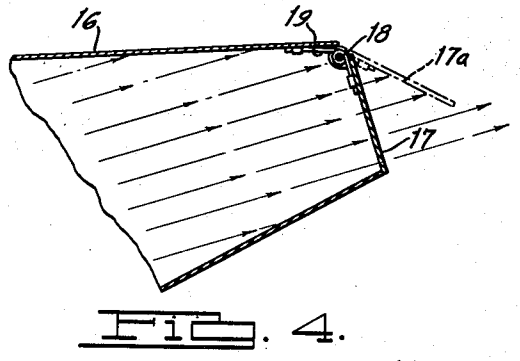


Fig. 4.

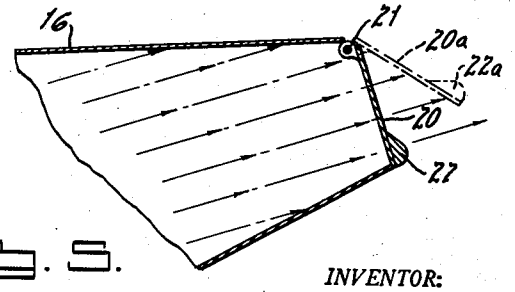


Fig. 5.

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KITE

Bruno B. Wisney, Detroit, Mich.

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3 Claims. (Cl. 244—153)

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My improvement pertains to kites in which a body plane of the conventional design is combined with certain novel elements for the purpose of increasing its operative efficiency. The novelty of my structural design of the kite consists in the inclusion in the body plane of the kite of one or a number of truncated cones as I will presently describe. The object of the modification is to provide means whereby the kite will automatically adjust itself to the strength of the air currents supporting the body plane in the air. A further object of my invention is to provide a kite which, retaining the basic design of the body plane, can be manufactured out of materials easily available, and which can be sold at an attractive price in trade. Another object is to provide a kite which because of its construction will resist the tendency for sudden edgewise movements, or unexpected downward dives. I shall now describe my improvement with reference to the accompanying drawings in which

Fig. 1 is a perspective view of my improved kite;

Fig. 2 is a perspective view of a modified species of my kite.

Fig. 3 is a side elevational view of the kite shown in Fig. 2 with a part thereof broken off;

Fig. 4 is a sectional view of the top portion of a cone-shaped member of my kite;

Fig. 5 is a sectional view of a fragment of a cone, mounted on the body plane of my kite and disclosing a modified closure for the narrow end of said cone.

Similar numerals refer to similar parts throughout the several views.

The body of the plane 10 which henceforth will be referred to as the plane, is made of a suitable sheet material such as paper, plastic, metal foil or the like. To present a flat surface the material is stretched on a light frame. This is made of two ribs 11 and 12, the first of which is disposed along the longitudinal axis of the plane, and the other of which, 12, crosses the longitudinal rib at right angle, as best shown in Figs. 1 and 2. The ends of the ribs are joined by cords or thin strips to form the sides of said framework, said sides being marked *a*, *a*, and *b*, *b*, respectively. The apex 13 of the kite is formed at the junction of sides *a* and *a*. The countertip 14, at the lower extremity of the kite is formed at the junction of sides *b* and *b*. A length of cord 15, joining the apex to the lower tip of the kite, is tied to the anchoring string 15*a* on what is the front side of the kite.

Up to now I have described features ordinarily

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employed in conventional kites. I shall now refer to the novel elements incorporated by me into the structural design of my improved kite. In the preferred embodiment of my improvement, the body plane of the kite is provided with two circular apertures 23 each opening into a cone 16 on the back side of the plane as shown in Fig. 1. As a result of this formation the inner surfaces of the cones supplement the flat surface of plane 10, thus increasing the lifting power of the kite. The narrow end of each cone is normally closed by a cap 17 hinged at 18, and kept in a closed position by a light wire spring 19. In Fig. 2 I show a modified form of my kite including only one centrally located cone 21. In Fig. 5 I show a cap 20 hinged at 21, and provided with a weight 22 to keep the cap normally closed. Numeral 28 shows the cap in its open position.

As already indicated, the cones serve a certain definite purpose. For one thing they add to the area of the surface of the plane. For another thing they serve to stabilize the plane in currents of variable intensity. Should the pressure of air currents bearing against the front surface of the plane rise to a degree that might ordinarily result in the breaking of the anchoring-string, or in damage to the fabric of the plane, the caps closing the narrow ends of the cones will open against the tension of springs or weights keeping said caps closed, permitting the escape of some of the air, and thereby reducing the pressure against the plane. This will permit the kite to be flown on very windy days without the danger of having it damaged, because some of the wind which would ordinarily exert pressure on the kite, will just pass through the cone.

While in the kites illustrated by me I have shown closures in the form of a cap actuated by weights or springs, it will be understood that other means of closing the cones may be devised, such for instance as movable plugs or resilient clips by means of which the narrow ends of the cones may be pinched in a normally closed or partly-closed position. It will be also understood that some other changes may be made in the structure of my kite without departing from the inventive principle disclosed herein. What I therefore wish to claim is as follows:

1. A kite of the kind described, comprising a body plane of sheet material, the body being provided with two circular apertures disposed symmetrically with respect to the longitudinal axis of the plane, a hollow truncated cone open at

both ends and mounted on the back surface of the plane, over each of the apertures, the base of the respective cone skirting said aperture, a member hinged to the tapered end of each cone to keep it normally closed but yielding to air pressure to permit passage of air through said end, and cord means to keep the kite in a soaring position.

2. A kite of the kind described, including a body plane made of sheet material stretched on a frame, the plane being provided with a plurality of circular apertures therein, a hollow truncated cone, open at both ends, based over each aperture on the back surface of the plane and at right angle thereto, and a spring actuated member hinged to the narrow end of the cone to keep it normally closed but yielding to air pressure to open it for passage of air rearwardly of the plane.

3. A kite having a body plane and hollow truncated cones open at both ends and based on the back surface of the plane, said plane being provided with circular apertures each being alined

and opening into a respective cone, the narrow end of each cone being provided with a disk shaped closure hinged to said end and adapted to be opened by pressure of air currents directed against the front surface of the plane.

BRUNO B. WISNEY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
354,098	Colby	Dec. 14, 1886
1,734,493	Knott	Nov. 5, 1929

FOREIGN PATENTS

Number	Country	Date
28,518	France (Addition to No. 544,865)	Nov. 26, 1921
325,212	France	Jan. 7, 1903