Dec. 9, 1924. 1,518,286

M. S. WETZEL

AERIAL FLOAT

Original Filed March 17, 1919

Fig. 1.

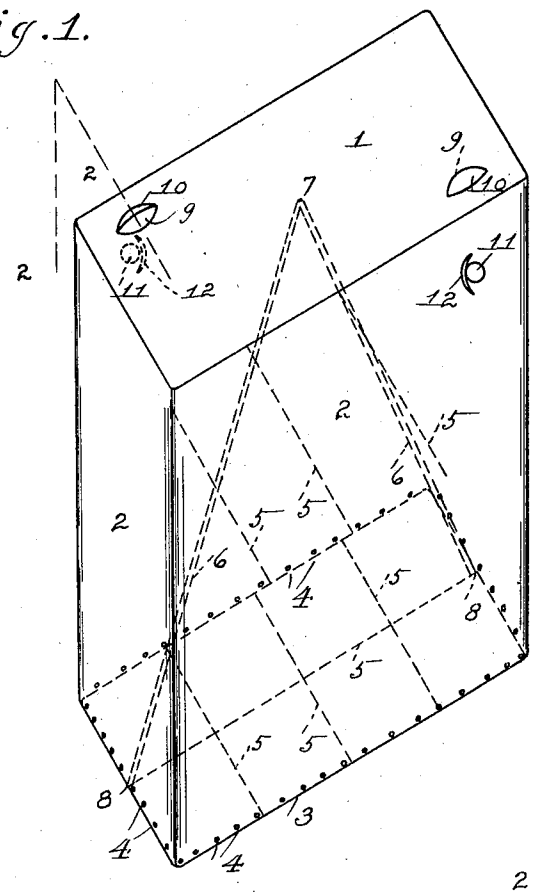
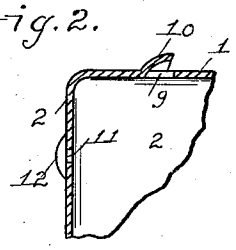


Fig. 2.



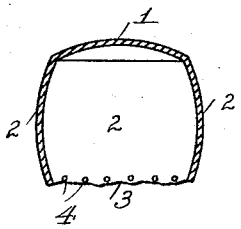


Fig. 3.

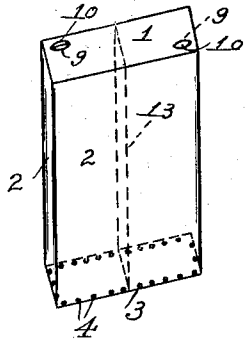


Fig. 4.

Witness:
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Patented Dec. 9, 1924. 1,518,286

UNITED STATES PATENT OFFICE.

MAURICE S. WETZEL, OF CHICAGO, ILLINOIS.

AERIAL FLOAT.

Original application filed March 17, 1919, Serial No. 283,073. Divided and this application filed March 17, 1923. Serial No. 625,834.

To all whom it may concern:

Be it known that I, MAURICE S. WETZEL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Aerial Floats, of which the following is a specification.

The present invention relates to aerial floats, i. e., such floats as are used for spectacular or advertising purposes, and particularly such as may be contained in a bomb and released therefrom by the bursting of the bomb in the air; and its object is to provide an improved collapsible float of that character; and, more particularly, to provide such a float having means for maintaining the desired outline of the float as properly extended; and further, to provide such a float having means for causing the same to rotate in the air.

These and any other objects hereinafter appearing are attained by, and the invention finds preferable embodiment in, the structure or structures hereinafter particularly described and illustrated by the accompanying drawings, in which:—

Figure 1 is a view in perspective of an aerial float;

Figure 2 is a vertical sectional view of a part of the same taken on a plane corresponding to line 2—2 of Figure 1;

Figure 3 is a central longitudinal sectional view of a modified form of the float; and

Figure 4 is a view in perspective of another modified form of the float.

The floats shown in these drawings are collapsible, having thin flexible walls (as of paper and the like) forming a top 1 and sides 2, and are adapted to be contained in collapsed form in bombs which are to be projected into the air and thereupon burst so as to release these floats—bombs of such character being described and illustrated in my pending application Ser. No. 283,073, filed March 17, 1919.

The open bottom 3 of the float is weighted as at 4 in order that the float may maintain the upright position shown in the drawings while floating in the air. In order to maintain the shape or outline of these floats when expanded in the air, by holding the walls against outward movement, flexible cords or stays 5 inside the float extend between its opposite sides, and stays 6 extend between the middle portion 7 of the top and the lower portion 8 of the sides. These stays 6 are preferably flat tapes which are not so liable to become tangled as are round cords.

The top of the float has openings 9 therethrough and vanes 10 adjacent said openings and angularly disposed toward the top. These openings are on opposite sides of the top's center and are oppositely inclined interrelatively. As the float gradually descends through the air, it is slowly rotated on its vertical axis by the passing of the air through these openings and contacting the inclined vanes. The same effect is produced by the openings 11 in the sides of the float, they being provided with the vanes 12.

In Figure 4 the float has a vertical flexible partition 13.

These floats are of a shape different from parachutes which are of a concavo-convex disk form. In the floats illustrated, the sides (or some portion thereof) and the top (or some portion thereof) are at right angles to each other; and where the top and sides are somewhat bowed outwardly as shown in Figure 3, they are so positioned interrelatively that tangents to such parts intersect at right angles. In all the forms illustrated, the sides form a distinct angle to the top.

Advertising matter or ornamental designs may be displayed on these floats. This application is divisional from my said pending application.

The invention being intended to be pointed out in the claims, is not to be limited to or by details of construction of the particular embodiment thereof shown or described.

I claim:

1. A collapsible float having a weighted flexible open bottom and flexible walls forming a top and sides, a portion of the sides in the non-collapsed condition of the float being at right angles to a portion of the top.

2. A collapsible float having a weighted flexible open bottom and flexible walls forming a top and sides, the top being at a distinct angle to the sides in the non-collapsed condition of the float.

3. A collapsible float having a weighted open bottom and flexible walls forming a top and sides; flexible stays inside the float and extending between the walls and adapted to hold the walls against outward movement.

4. A collapsible float having a weighted open bottom and flexible walls forming a top and sides; flexible flat tapes inside the float and extending between the walls and adapted to hold the walls against outward movement.

5. A collapsible float having a weighted open bottom and flexible walls forming a top and oppositely disposed sides; flexible stays inside the float and extending between opposite sides and adapted to hold said sides against outward movement.

6. A collapsible float having a weighted open bottom and flexible walls forming a top and sides; flexible stays inside the float and extending between the middle portion of the top and the lower portion of the sides and adapted to hold the top and sides against outward movement.

7. A float having in its top an opening therethrough and a vane adjacent said opening and angularly disposed toward the top.

8. A float having an opening through its wall and a vane adjacent said opening and angularly disposed toward said wall.

9. A float having in its top openings therethrough on opposite sides of its center and vanes adjacent said openings respectively and angularly disposed toward the top and oppositely inclined interrelatively.

10. A collapsible float having a weighted flexible open bottom and flexible walls forming a top and sides, the top and sides being so positioned interrelatively in the non-collapsed condition of the float that tangents to a portion of the top and to a portion of the sides intersect at right angles.

In testimony whereof I have hereunto set my hand at Chicago, Illinois, this 14th day of March, 1923.

MAURICE S. WETZEL.