June 24, 1930. L. DETZEL 1,767,968

PARACHUTE

Filed May 25, 1929

Fig. 1.

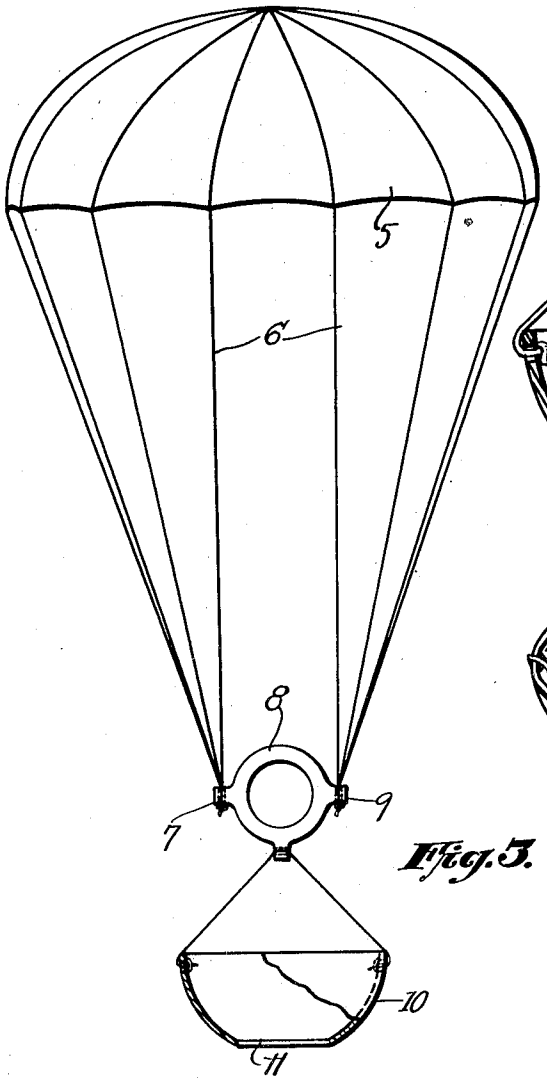


Fig. 4.

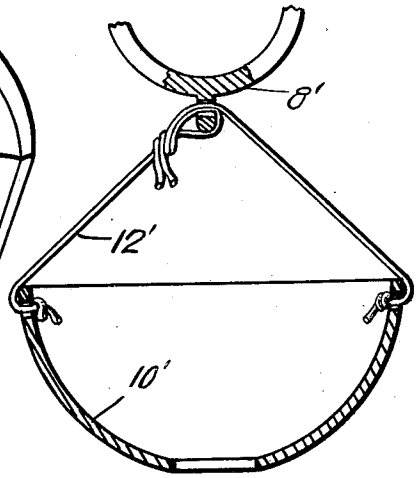


Fig. 3.

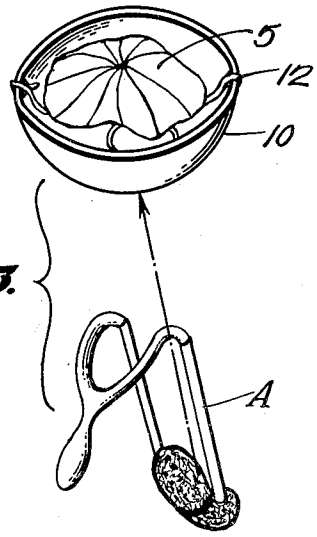
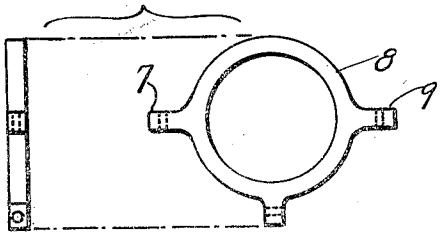


Fig. 2.



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Patented June 24, 1930 1,767,968

UNITED STATES PATENT OFFICE

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PARACHUTE

Application filed May 25, 1929. Serial No. 365,859.

This invention relates to new and useful improvements in parachutes, especially of the toy variety, and aims to provide a novel, simple and highly amusing parachute construction that is adapted to be projected into the air with the aid of a sling-shot or other suitable device, and that will when reaching the limit of its projection completely open up, and return to the earth in opened condition.

An important object of this invention resides in the provision of a parachute construction that may be so arranged and contained within itself as to provide a projectile to facilitate the projection of the parachute to great height within the air.

Furthermore, the construction is such that the parachute will absolutely open in every instance, as soon as it has, in the form of a projectile, reached its limit of projection into the air.

Generally, the invention consists of a circular piece of silk, paper, or other flexible fabric, from the edge of which are extended cords that are attached at their lower ends to a cord spreading unit to prevent the cords from becoming tangled. In turn the spreader unit is associated to a basket in the form of a hemi-spherical container within which the fabric, cords and spreader are all to be arranged in order that the complete parachute may be projected into the air in the form of a missile. If desired, the basket element may be rigidly secured to the spreader element, so that the parachute will return to the earth within proximity to the points from which the missile was projected.

However, if desired, a loose connection may be provided between the spreader and basket so that the basket will drop to the earth within the proximity of the point of projection, whereas the remaining features of the parachute will be carried for great distances depending upon the course of the wind.

A further and important object of this invention is to provide a parachute of this character that is extremely simple in construction and inexpensive of manufacture, and that will prove of unusual interest to adults as well as children.

The foregoing and other objects will become apparent as the nature of the invention will be better understood from the following description when considered in conjunction with the accompanying drawing.

In the drawing wherein like reference characters indicate corresponding parts throughout the various views:

Figure 1 is a view mainly in side elevation, and partially in cross section of my improved parachute when in entirely open condition.

Figure 2 is a group view of the spreader member for the parachute cords, disclosing the same in side and edge elevation.

Figure 3 is a perspective of the parachute when in the form of a missile, and being illustrated in the act of being projected from a sling-shot, and

Figure 4 is a fragmentary sectional view disclosing the cord spreader and basket unit interconnected loosely, so as to permit the basket element to disengage from the remainder of the parachute during the descension thereof.

First, having reference to Figures 1 to 3 inclusive, my improved parachute consists of a piece of silk, paper or other flexible material 5 of predetermined dimensions and of a suitable shape.

Attached to the edge of this piece of fabric are a plurality of lengths of cord, thread or the like 6. The lower ends of the cord at one side of the fabric 5 are secured to one common point 7 of a spreader ring 8, while those cords at the opposite side of the fabric are attached at their lower ends to a common opposed point 9 of said spreader ring 8, see Figure 1. Preferably, said spreader ring 8 is formed at opposed points with eyes, through which the lower ends of those cords at opposite sides of the fabric 5 are arranged as disclosed. However, many types of spreaders may be provided, the main idea being to attach the lower ends of the cords of one side of the fabric to one point, and those at the other side of the fabric to a spaced point.

The parachute further consists of a basket member 10, preferably in the form of a semi hemispherical container of rubber or the like,

and preferably formed at its bottom with an air opening 11. The lower edge of the spreader 8 is preferably permanently secured to this basket member, through the medium of a guy cord 12, attached intermediate its ends to the spreader, and at its opposite ends to the upper edge of the basket member 10, at direct opposed points.

In actual practice, the fabric element 5 is rolled up after which the cords 6 are wound therearound, whereupon said fabric, cords and spreader 8 are disposed within the basket member 10 to provide a missile, as illustrated somewhat in Figure 3. This missile is then projected into the air through the medium of any suitable means, preferably a sling-shot A. As soon as the missile reaches its limit of projection and starts to drop downwardly, the fabric and spreader ring 8 will fall from the basket, being partially assisted therefrom by the passage of the air through the opening 11 in the basket.

The fabric 5 will then open up whereupon the entire unit will slowly drop to the ground to be recaptured and projected again. When the basket is permanently associated with the spreader, the entire parachute will drop to the ground within close proximity to the point of projection. However, if it is desired to permit the parachute to float in the air and to be carried great distances by the force of the wind, the spreader 8′ as disclosed in Figure 4 may be secured to the basket member 10′ by a loosely tied cord connection 12′. In this instance, as soon as the fabric has completely opened and the parachute starts to fall, the weight of the basket member 10′ will cause the detachment of the cord 12′, whereupon the basket will fall to the earth, and the remaining elements of the parachute will be carried by the wind.

In view of the foregoing description when considered in conjunction with the accompanying drawing, it will be apparent that I have provided a novel, simple and amusing parachute that is well adapted for all of the purposes heretofore designated, and even though I have herein shown and described the invention as consisting of certain detailed structural elements, it is nevertheless to be understood that some changes may be made therein, without affecting the spirit and scope of the appended claim.

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

In a parachute of the character described, a strip of flexible material, guy cords depending from the edge of the strip of material and in predetermined spaced relation with each other, a spreader member in the form of an annulus having diametrically opposite perforated ears thereon, connection between the lower ends of the guy cords at one side of the flexible material and the respective ear on the spreader member, and connections beween the lower ends of the other guy cords and the other ear on the spreader member, and an open top basket member associated with said spreader member adapted to receive the strip, cords and spreader member, said basket being provided with an opening in its bottom for the passage of air to remove the strip, cords and spreader therefrom.

In testimony whereof I affix my signature.

LYNN DETZEL.