No. 807,977. PATENTED DEC. 19, 1905.

C. W. VAN VLEET.

PARACHUTE.

APPLICATION FILED FEB. 12, 1903.

Fig. 1.

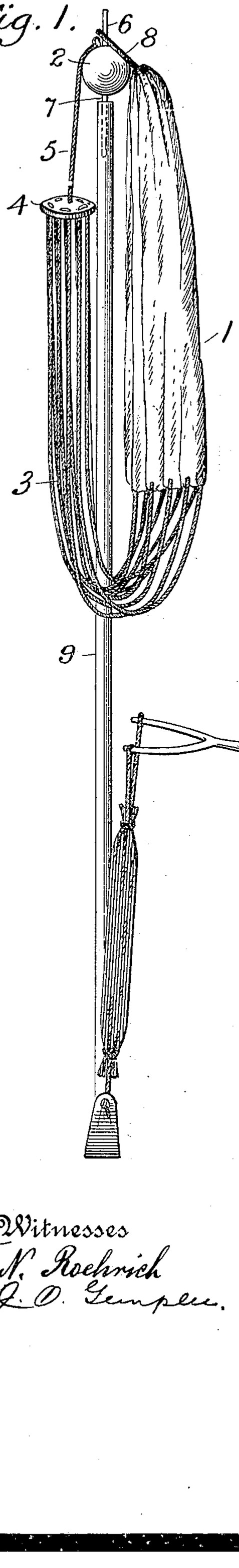


Fig. 2.

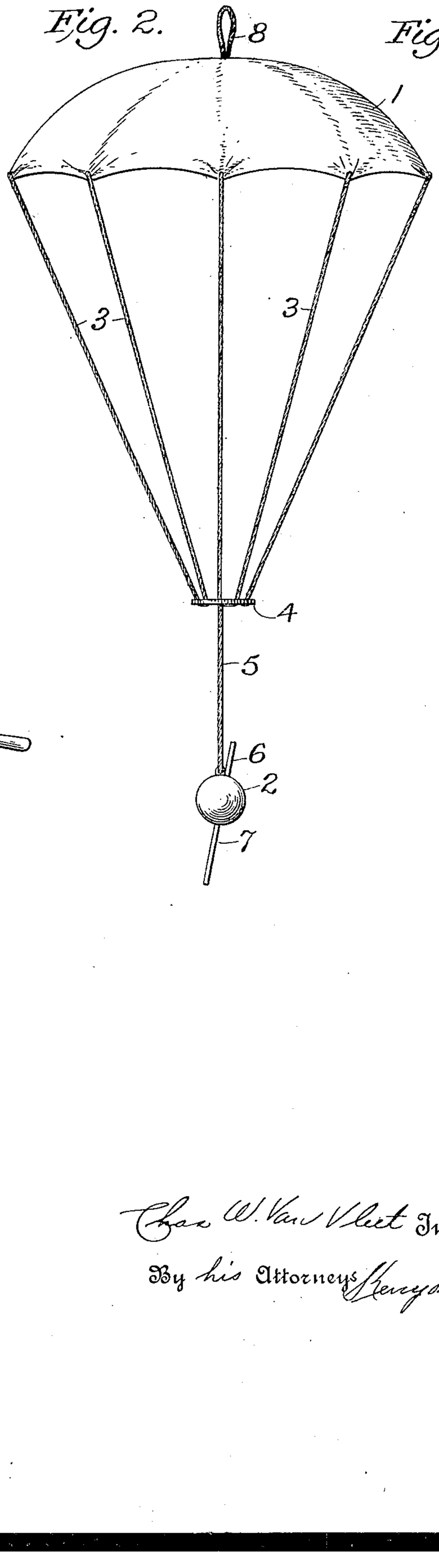
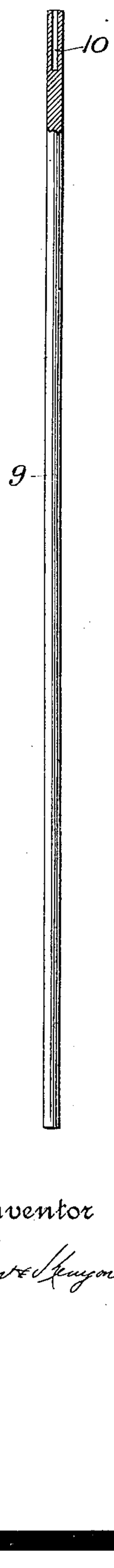


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES W. VAN VLEET, OF NEW YORK, N. Y., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO NATIONAL GAME MANUFACTURING CO., A CORPORATION OF NEW YORK.

PARACHUTE.

No. 807,977. Specification of Letters Patent. Patented Dec. 19, 1905.

Application filed February 12, 1903. Serial No. 143,033.

To all whom it may concern:

Be it known that I, CHARLES W. VAN VLEET, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Parachutes, of which the following is a specification.

My invention relates to improvements in parachutes; and it has for its object to provide a parachute that may be thrown to a great height and one which will open readily when its upperward motion has ceased.

My invention consists in providing a means for attaching a projectile to the parachute, so that the projectile will detach itself from the parachute when its energy is spent.

My invention also consists in means of connecting the weight to the center of the retarding member of the parachute and connecting the projectile to the said weight, so that when the energy of the weight and the projectile is spent the weight will detach itself from the center of the retarding member and the projectile will detach itself from the weight and leave the parachute, together with the weight, supported in the air.

My invention also consists in other features of construction and combinations of parts hereinafter described and claimed.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 illustrates the parachute in position ready to be thrown in the air. Fig. 2 illustrates the parachute as supported in the air. Fig. 3 illustrates the projectile used in sending the parachute into the air.

1 indicates the retarding member of the parachute, which consists of any flexible material, such as cloth, silk, or strong paper. The retarding member is usually cut circular and is connected to the weight 2 by means of cords 3 3. The cords are attached to the outer edge of the retarding member 1 and are secured to the outer edge of the circular piece 4. The weight is then attached to the center of the circular piece 4 by means of a cord 5. The weight 2 may be of any shape desirable. However, it is found that a spherical shape is preferable, since it offers the least resistance to the air when it is projected. Two pins 6 and 7 are attached to the weight and preferably at points diametrically opposite to each other. The pins are adapted to secure the center of the retarding member 1 of the parachute to the weight and also to secure the projectile to the weight.

A loop 8, composed of cord or wire, is attached by any well-known means to the center of the retarding member of the parachute. If the loop 8 is a piece of cord, it may be attached by merely sewing or pasting to the center of the parachute. If, however, it is wire, it may be secured by means of washers in a manner well known in the art.

When it is desired to secure the weight to the center of the parachute, the pin 6, located on the weight 2, is inserted in the loop 8. When the weight is thus secured to the parachute at its center and the parachute and the weight is projected into the air, the motion through the air will cause the parachute to remain closed. As soon as, however, the energy of the weight and projectile is spent the pin of the weight will slip out of the loop, while the retarding member will open and be supported in the air.

The projectile 9 is illustrated in Fig. 3. It is preferably made in the form of a rod and of such a length that it will permit the operation of a projecting means. On the upper end of the projectile 9 is located a socket 10. When the projectile is to be attached to the weight, the pin 7 is inserted in the socket 10. The pin and socket are of such a size that the pin is loosely fitted into the socket, so that the projectile may be easily detached from the weight. When the parachute is to be thrown into the air, the projectile is connected to the weight by inserting the pins of the weight into the socket 10, and then the center of the retarding member 1 of the parachute is secured to the weight by means of the pin 6 and the loop 8. The parachute is thrown into the air by means of some projecting means. When the energy of the weight and the projectile is spent, the weight detaches itself from the loop located in the center of the retarding member of the parachute and the projectile drops away from the weight. The parachute immediately opens up by its downward motion in the air.

I have found that by means of this apparatus the parachute will rise to a great height with very little retardation due to the flexible material of which the parachute is composed. Furthermore, I have found that when the

energy of the projectile and weight is spent the parachute immediately opens and is supported in mid-air.

The particular construction which I have described above and which is illustrated in the drawings may be varied by those skilled in the art without in any way departing from the spirit of my invention. The projectile may be greatly varied according to the projecting means which is used to throw the parachute into the air. The connection between the parachute and the projectile may also be greatly varied without departing from the spirit of my invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a parachute the combination of a retarding member, a weight connected to the periphery of the retarding member and provided with a projecting portion, and a projectile having a socket, whereby when the energy of the projectile is spent the projectile, weight and retarding member will be detached from one another.

2. In a parachute the combination of a retarding member having a loop at its center, a disk having its periphery connected to the periphery of said retarding member, a weight connected to the said disk and having a pair of pins, a projectile having a socket, whereby the weight may be attached to the center of the said retarding member and to the said projectile and when the energy of the projectile is spent it will detach itself from the said weight and the weight will detach itself from the center of the said retarding member.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES W. VAN VLEET.

Witnesses:
J. O. GEMPLER,
EDWIN SEGER.