

A. RAMAUGÉ.
PARACHUTE COMPRISING PNEUMATIC MEANS.
APPLICATION FILED JUNE 27, 1918.

1,328,848.

Patented Jan. 27, 1920.

2 SHEETS—SHEET 1.

FIG. 1.

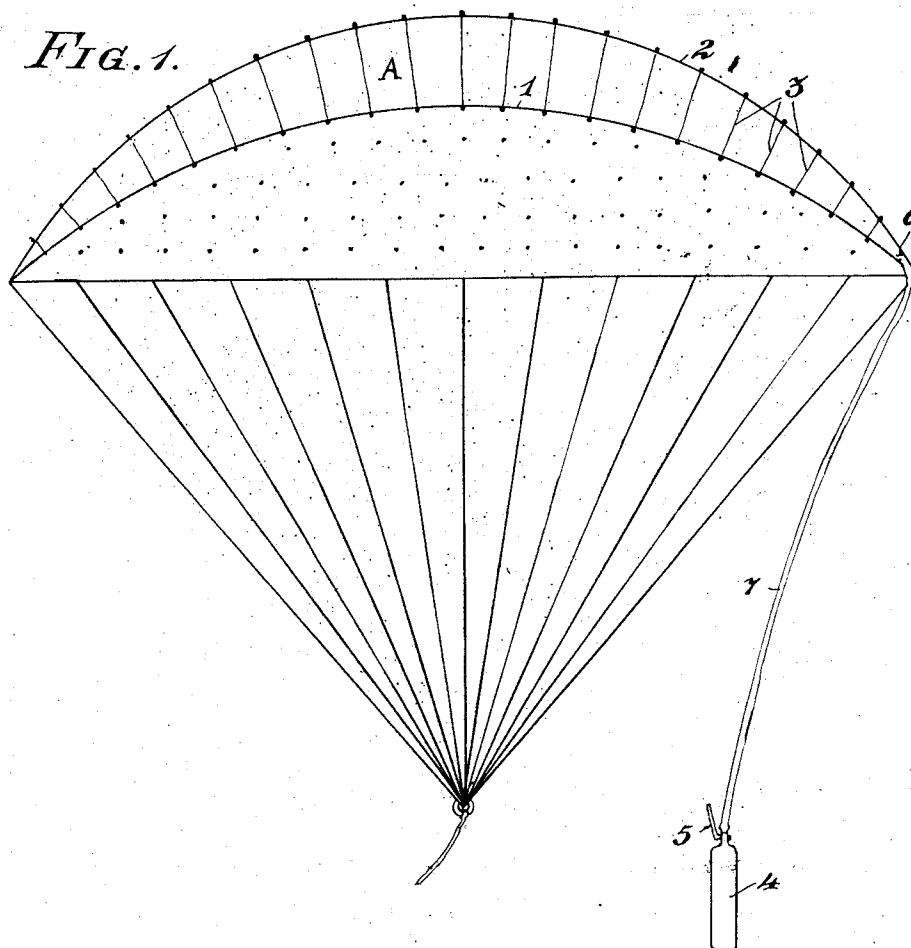
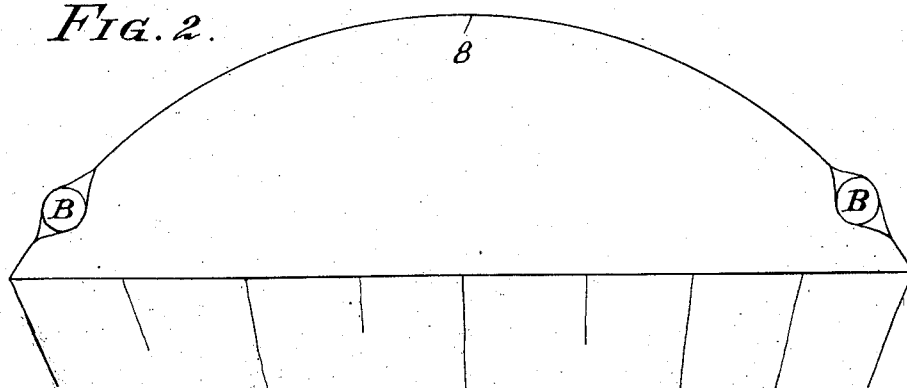


FIG. 2.



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2 SHEETS—SHEET 2.

FIG. 3

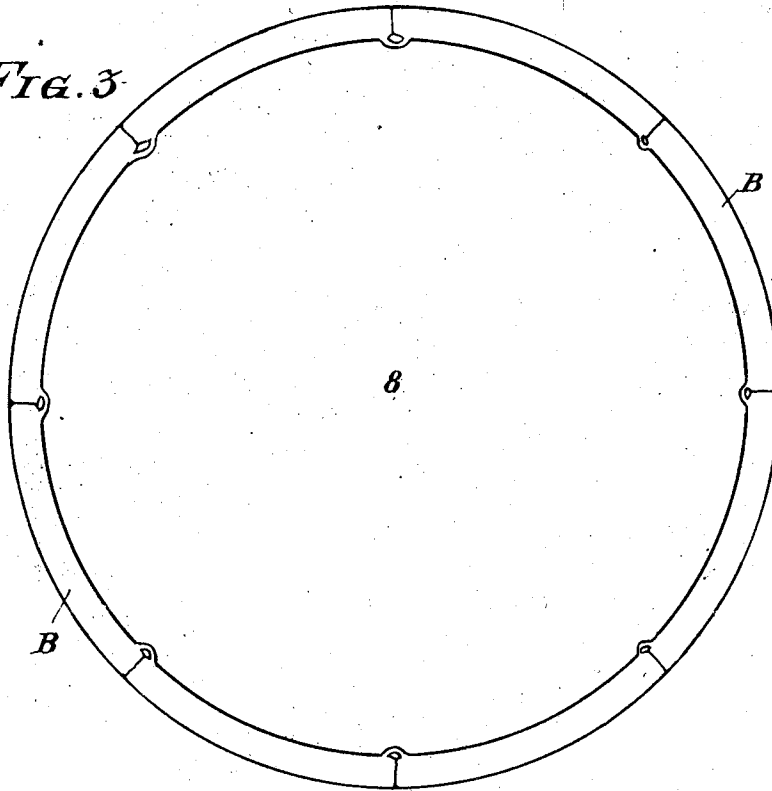
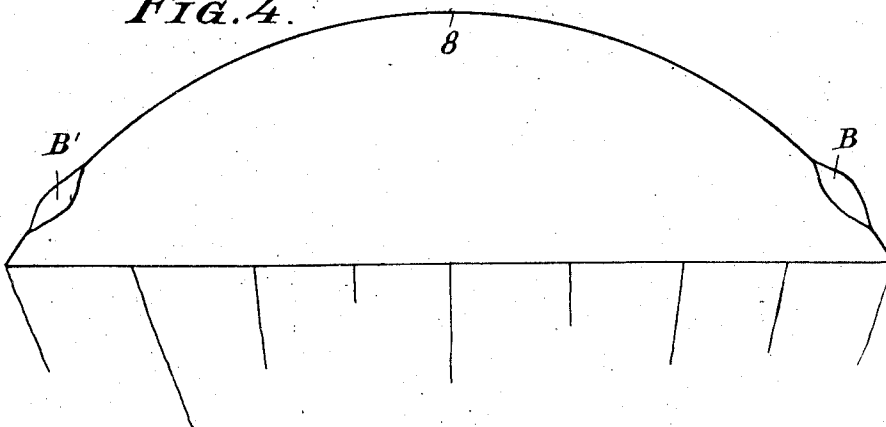


FIG. 4.



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UNITED STATES PATENT OFFICE.

ADALBERTO RAMAUGÉ, OF BUENOS AIRES, ARGENTINA.

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1,328,848.

Specification of Letters Patent.

Patented Jan. 27, 1920.

Application filed June 27, 1918. Serial No. 242,211.

To all whom it may concern:

Be it known that I, ADALBERTO RAMAUGÉ, a citizen of the Argentine Republic, a physician, residing at Calle Maipú 545, Buenos Aires, Argentina, have invented a new and useful Improvement in Parachutes Comprising Pneumatic Means, of which the following is a specification.

This invention relates to improvements in parachutes of the pneumatic type, and is characterized by being provided with pneumatic means which cause an opening or unfolding of the same instantaneously at the moment of danger.

The pneumatic means, with which the parachute has been provided, occupy so large a space that in case of a fall in the sea, said means will insure a perfect floating capacity of the device during a long period of time.

It is well known that a serious drawback of ordinary parachutes consists in the fact that they open or unfold with difficulty and thus frequently cause severe accidents, as such parachutes descend at a high speed from considerable heights and arrive at the ground without even having initiated their function. This is owing to the fact that as the parachute is in a folded condition at the instant of its release or disconnection, the gravitation of the suspended body will cause the cords or ropes to keep taut, thereby preventing the air from entering between the folds of fabric which constitute the suspension means.

As will hereinafter be seen, the above objection is entirely eliminated by providing an improved pneumatic means which constitute the essential part of this invention and which convert the ordinary parachute into a perfectly safe apparatus and life-preserver.

In order that this description may be readily understood, I have annexed thereto detailed drawings in which—

Figure 1 is a diagrammatic central cross section of a parachute constructed in accordance with this invention.

Fig. 2 is a similar view showing a modified arrangement of the pneumatic means for opening or unfolding the parachute.

Fig. 3 is a plan view of another variation of the foregoing figure.

Fig. 4 illustrates a variation in the manner of forming the pneumatic ducts or passages.

The form illustrated in Fig. 1 consists of

two superposed circular sheets 1 and 2 of flexible waterproof fabric, the edges of which are connected together in an airtight manner. The diameter of the top sheet 2 is greater than the diameter of the under or bottom sheet 1 so that when the two sheets are distended, they are eccentric to one another and form the wall of a chamber A which is crescent shape in cross-section. Throughout the interior of the chamber the wall-sheets are connected by tension cords 3 the length of which corresponds to the distance between the sheets and operate to maintain, define and limit the size and shape of the chamber.

Air, or preferably compressed hydrogen to be introduced between the sheets, at the moment of use of the parachute, is contained within a strong steel flask 4, of a size proportional to the area of the chamber A. This flask which is provided with a regulating cock 5 is arranged within the reach of the aviator and is connected, through a non-return valve 6, with the chamber by a tube 7.

In the constructional form shown in Figs. 2 and 3, said space A has been replaced by a pneumatic tube B which entirely surrounds the supporting plane or covering 8.

The said pneumatic tube may be replaced, as shown in Fig. 4, by a duct or passage B', formed by a premarginal unfolding of the waterproof fabrics which, after being inflated by the gases, will assume a coronary or ring like shape.

The air or gases compressed by their own expansional force, when being admitted into the space A of the form of construction first described, or into the tube B or B' of the other modifications, will inflate or distend the same and cause the instantaneous unfolding or opening of the parachute which, suitably folded and placed at a convenient place on the aeroplane, will erect itself and become taut and speedily ready for the use for which it is intended.

As will be understood from the foregoing, a simple little movement, performed by the aviator's hand on the cock 5, instantly sets working the whole apparatus, which latter will obey the pressure of the compressed gases as would muscles do when answering to a nervous and intelligent influence.

I claim—

1. A parachute comprising two sheets of

5 fabric connected together air-tight, means for introducing a buoyant inflating medium between the sheets at the lower and outer edges thereof to form a chamber when inflated, and a plurality of flexible tension cords to maintain, define, and limit the size and shape of the chamber when inflated.

10 2. A parachute comprising two superposed circular sheets of waterproof flexible fabric connected together air-tight at their edges, the top sheet having a greater diameter than the undersheet, means for introducing a buoyant inflating medium between the

15 sheets at the lower and outer edges thereof to form a chamber when inflated having eccentric walls, and a plurality of flexible tension cords connected to the opposing faces of the sheets and gradually increasing in length from the periphery of the chamber to the axis thereof for preventing the separation of the wall sheets beyond a predetermined distance. 20

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Witnesses:

AUTO L. BELLO,
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