

S. BANIC.

PARACHUTE.

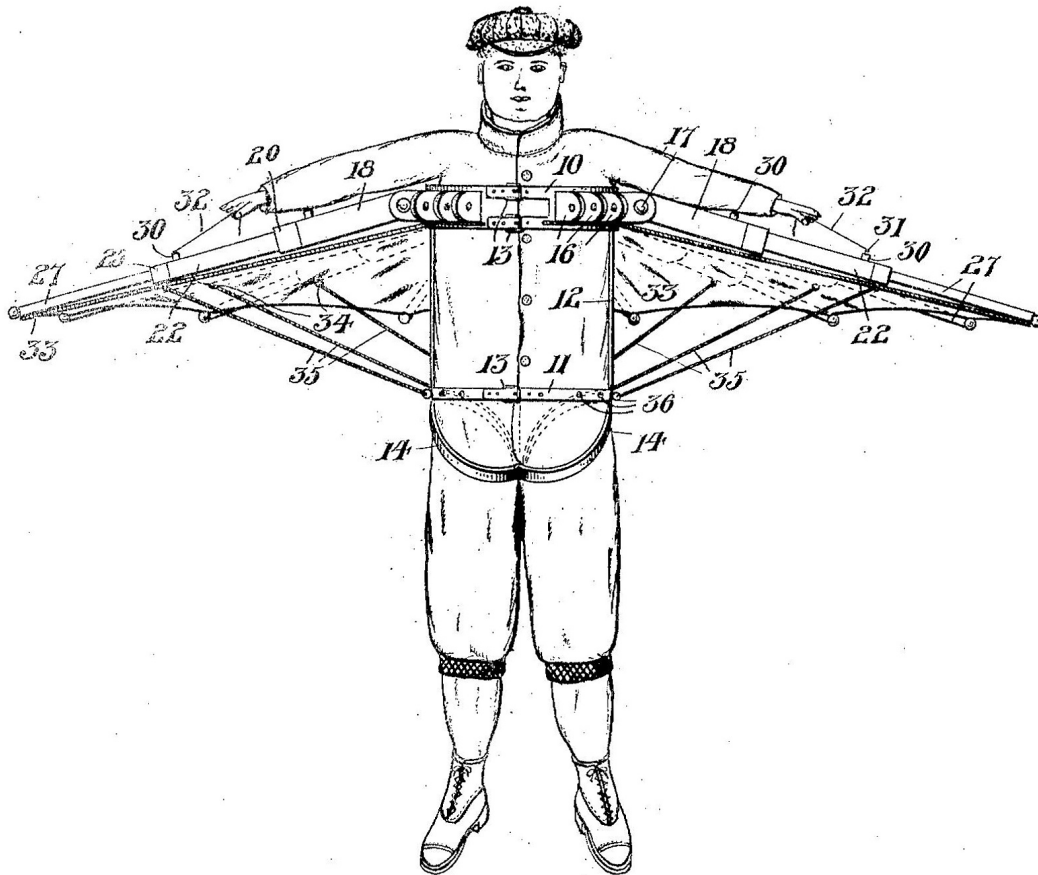
APPLICATION FILED JUNE 3, 1914.

1,108,484.

Patented Aug. 25, 1914.

2 SHEETS—SHEET 1.

Fig. 1



Witnesses

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Patented Aug. 25, 1914.
2 SHEETS-SHEET 2.

Fig. 2.

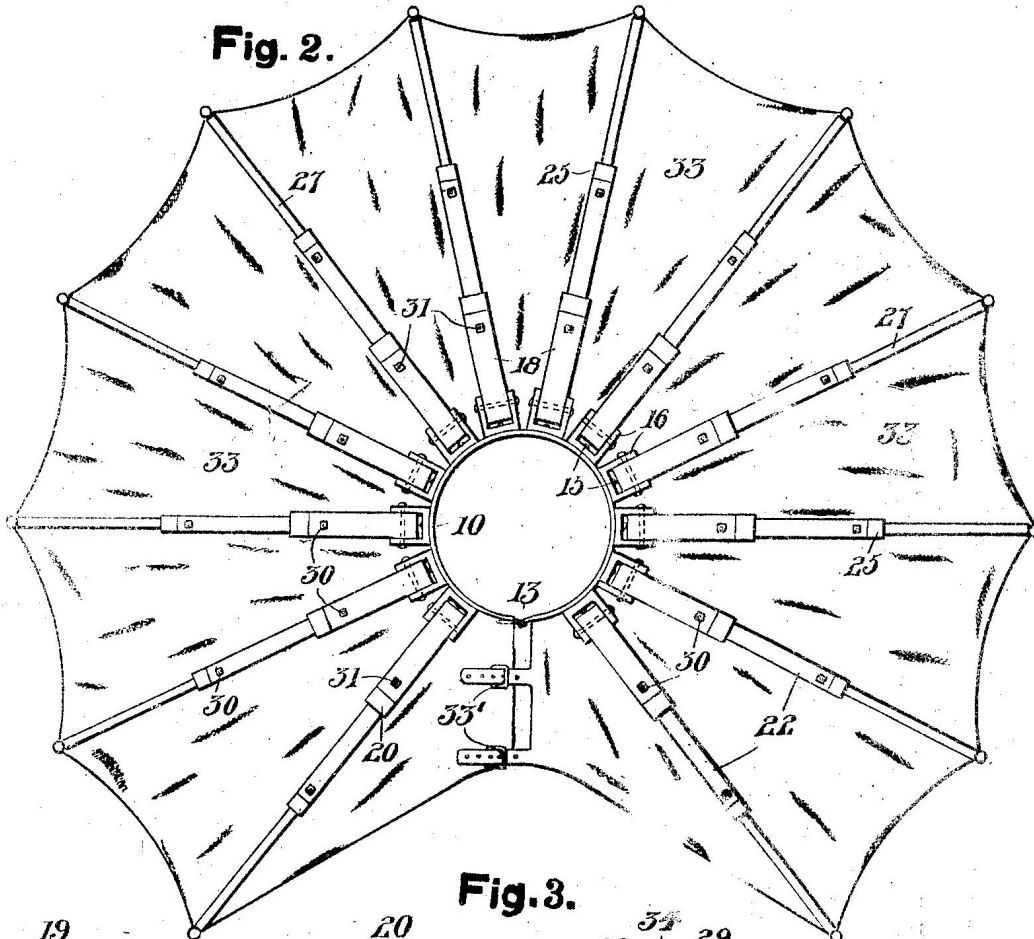


Fig. 3.

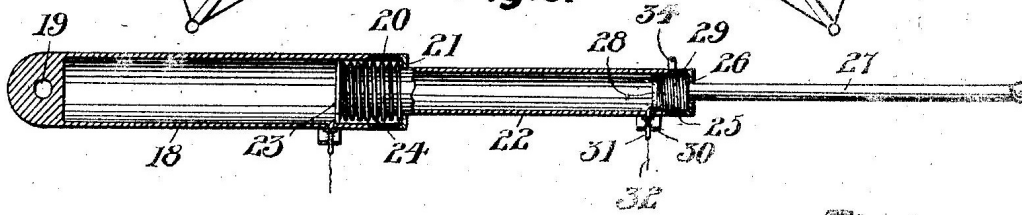


Fig. 4.

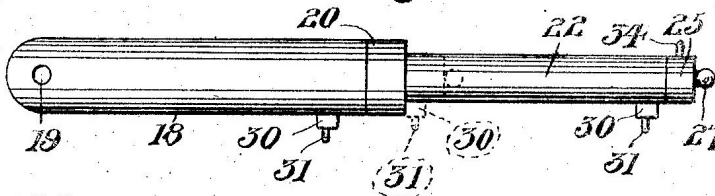
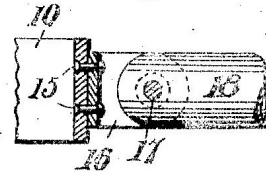


Fig. 5.



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UNITED STATES PATENT OFFICE.

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PARACHUTE.

1,108,484.

Specification of Letters Patent.

Patented Aug. 25, 1914.

Application filed June 3, 1914. Serial No. 842,645.

To all whom it may concern:

Be it known that I, STEPHAN BANIC, a subject of the Emperor of Austria-Hungary, residing at Greenville, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Parachutes, of which the following is a specification.

An object of the invention is to provide a parachute of collapsible type which may be easily and quickly attached to the body of the wearer and readily distended to operative position when desired.

A further object of the invention is to provide a parachute employing a plurality of telescoping rod and tube sections with a canvas or other fabric covering and wherein the telescoping sections are spring-controlled to cause the same to be automatically telescoped when it is desired to increase the velocity of descent or to entirely collapse the sections when the device is out of use.

With the above general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be hereinafter more fully described and then claimed.

In the accompanying drawing which shows the preferred embodiment of my invention and to which reference is had herein by like characters designating corresponding parts throughout the several views:— Figure 1 is a vertical longitudinal sectional view of the device in position on a wearer. Fig. 2 is a top plan view of the same. Fig. 3 is a longitudinal sectional view of one of the rib sections. Fig. 4 is a side elevational view of one of the rib sections partially telescoped, and, Fig. 5 is a sectional view of one of the rib section pivots.

Briefly described, the invention employs a body harness carrying a plurality of telescoping rib sections pivoted thereto that are adapted to be normally telescoped into each other and to assume a position horizontal to the body of the wearer and when in operative position to be distended as shown in Fig. 1, with cords for limiting the upward movement of the rib sections and further employing means to automatically telescope the several sections forming each rib.

Referring more in detail to the accompanying drawing, the reference numeral 10 designates a body strap that is adapted to be transversely positioned on the body of the

wearer at a point adjacent the arm pits, with a second strap 11 positioned transversely of the body at a point adjacent the hips, the two straps 10 and 11 being connected by longitudinal straps 12 to the meeting ends of the straps 10 and 11 with any conventional form of fastening means such as buckles 13. A pair of crotch straps 14 are provided and are adapted to encircle the legs of the wearer, as clearly shown in Fig. 1, and be connected to the sides of the waist strap 11. The several straps above described constitute the body harness and are adapted to support the parachute ribs.

Secured to the strap 10 as by rivets or other suitable fastening means 15, are a plurality of angle bars 16 which carry cross pins 17 for the pivotal support of the telescoping tube sections. These angle members are suitably spaced apart as shown in Fig. 2, and have mounted on the pin 17 the inner section 18 of the telescoping ribs, such inner section being provided with an opening 19 in the solid inner end thereof to be received on the pin 17. The inner section 18 is a tubular member reduced and exteriorly threaded at its outer end for the reception of a cap or ferrule 20 carrying an inwardly-directed annular flange 21 at the outer end thereof for purposes to be later described. Slidingly-mounted in the tube section 18 is a tube section 22 provided with a head or peripheral flange 23 on its inner end, and encircling the tube section 22 between the flange 21 and head 23 is a coil spring 24, the flange and head constituting end seats for the coil spring. The outer end of the tube section 22 is reduced similar to the outer end of the tube section 18 and exteriorly threaded for the reception of an end cap or ferrule 25, the said ferrule carrying an inwardly-directed annular flange 26. The outer member of each of the telescoping tube sections preferably consists of a bar or rod 27 provided on its inner end with a head 28 which constitutes a seat for one end of a second coil spring 29, the said spring being seated at its other end on the flange 26 and encircling the rod 27 between the head 28 and flange 26.

Means are provided to hold the telescoping sections in distended position as shown in Figs. 2 and 3 against the tension of the springs 24 and 29 and consists in providing on each of the tubular members 18 and 22 adjacent the outer end thereof, a strap or

bracket 30 having slidably mounted therein a spring-pressed dog 31 which extends inwardly through the side walls of the tube sections 18 and 22 and engages the section heads 23 and 28 to hold the same in distended position against the tension of the springs as clearly shown in Fig. 3, and when it is desired to collapse the sections or cause the same to telescope within each other, the cords 32 are gripped by the hand as shown in Fig. 1 and drawn outwardly to cause the spring-pressed dogs 31 to be removed from the path of movement of the heads 23 and 28, whereupon the springs 24 and 29 will assert themselves and cause the several rib sections to telescope.

A covering of canvas or other suitable material as indicated at 33 is suitably secured to the transverse body strap 10, to the legs 34 carried by the tube section 22 and to the outer ends of the section rods 27, the covering being disposed beneath the rib sections as shown in Figs. 1 and 2. The front side of the canvas 33 is preferably joined by the buckle strap connections 33' and is cut away at the front portion as shown in plan view in Fig. 2, to enable the wearer of the parachute to clearly observe the descent, but in no way lessening the buoyant properties of the device.

In order to limit the upward movement of the rib sections, I provide ropes or straps 35 connected at their outer ends to the lugs 34 and at their inner ends to lugs or eye bolts 36 suitably positioned about the waist strap 11. As shown in Fig. 1, the device is in operative position with the rib sections elevated and distended, and limited in their elevating movement by the ropes 35. The air pressure beneath the canvas 33 will hold the parachute in proper position on the body, while the crotch straps 14 will prevent the device from unduly riding upwardly. As before described, each of the spring-pressed sliding bolts 31 is provided with an operating string or rope 32 and when these strings are gripped as shown in Fig. 1 and operated to remove the selected bolt 31 from its respective tube section, the

released section will be forced inwardly and telescope into the section by the action of the spring. In order to entirely collapse the device, it is only necessary to release the several bolts from their operative position whereupon the springs will collapse the several sections and by removing the body straps 10 and 11 and the crotch straps 14, the device may be folded to assume a minimum of space.

While the accompanying drawings illustrate the preferred embodiments of the present invention, I do not wish to be confined thereto as various forms, modifications, and arrangements of the parts as shown may be had without departing from the spirit and scope of the invention as claimed.

What I claim as new is:—

1. In a parachute, a body harness, comprising a breast strap, a waist strap and crotch straps, longitudinal straps connecting the breast and waist straps, telescoping rib sections carried by the breast strap, a canvas disposed beneath the tube sections, and means connected to the waist strap and tube sections to limit the same in their upward movement.

2. In a parachute, a body harness, a plurality of telescoping tube sections, a canvas parachute section disposed beneath the same, each rib section comprising a plurality of telescoping sections, and a spring adapted to cause each of the sections to telescope.

3. In a parachute, a body harness comprising a breast strap, a waist strap and crotch straps, angle members carried by the breast strap, a plurality of telescoping rib sections pivotally-mounted in the angle members, means for holding the telescoping rib sections in distended position, and means for causing the sections to telescope when the aforesaid means is released from operative position.

In testimony whereof I affix my signature in presence of two witnesses.

STEPHAN BANIC.

Witnesses:

JOSEF ROLLAR.

MAJK JANIS.