J. FUJI.

PARACHUTE.

APPLICATION FILED DEC. 1, 1917.

1,264,050.

Patented Apr. 23, 1918.

2 SHEETS—SHEET 1.

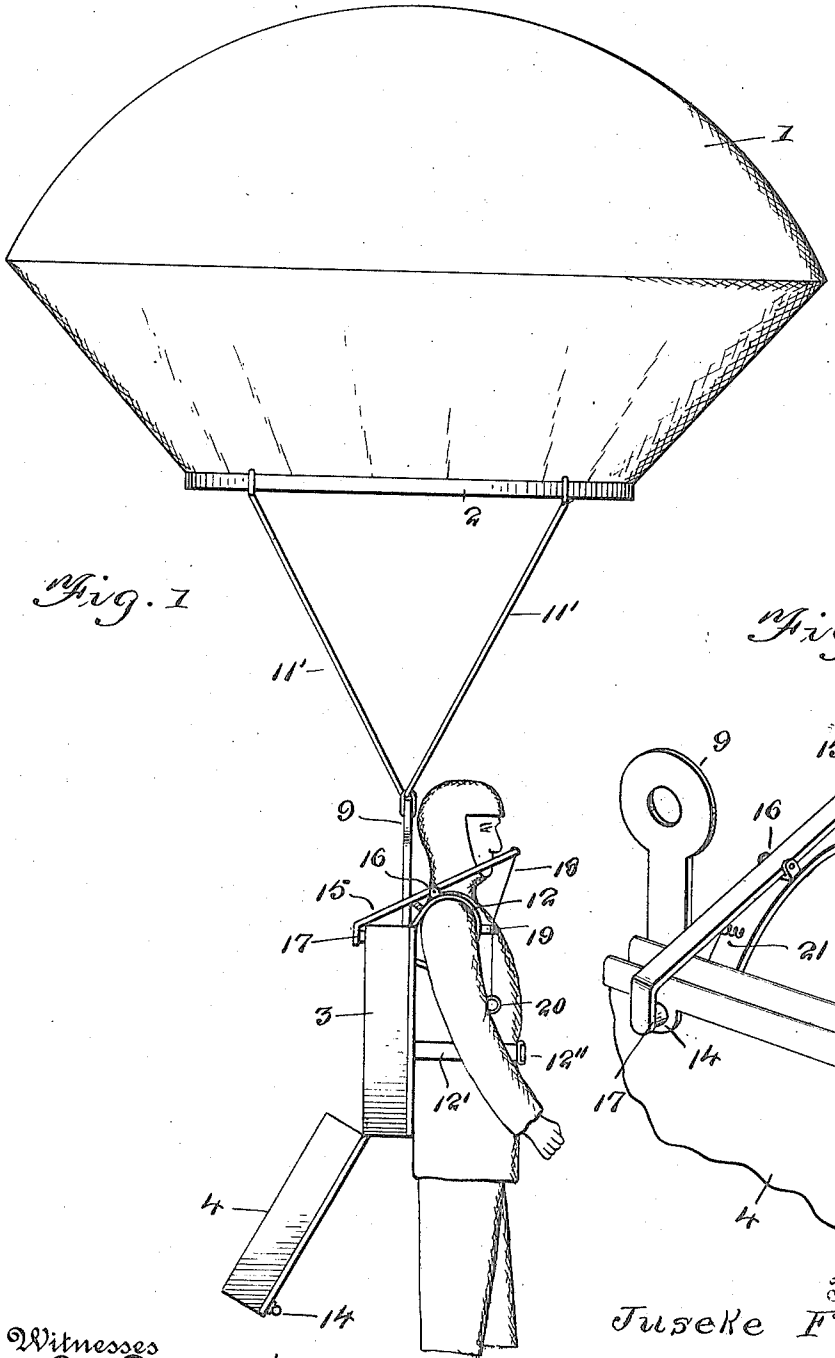


Fig. 1

Fig. 4.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

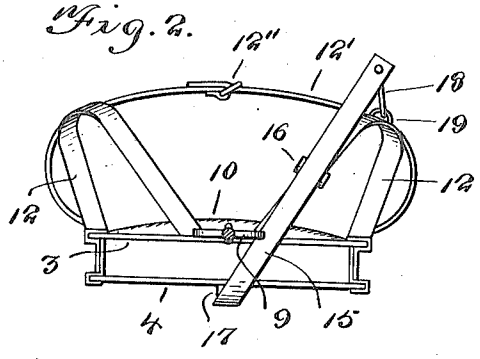


Fig. 3.

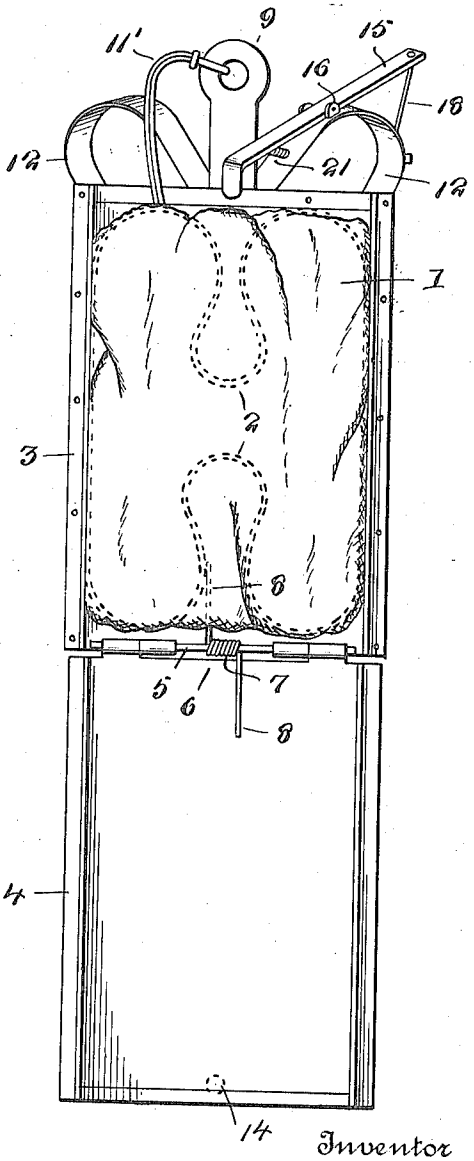


Fig. 5.

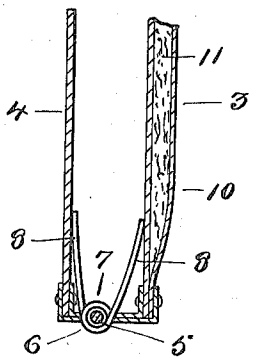
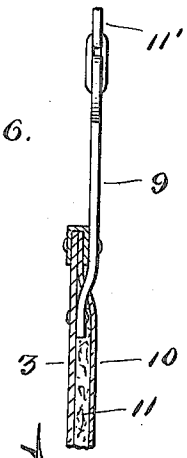


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

JUSEKE FUJI, OF FORT STANTON, NEW MEXICO.

PARACHUTE.

1,264,050. Specification of Letters Patent. Patented Apr. 23, 1918.

Application filed December 1, 1917. Serial No. 204,389.

To all whom it may concern:

Be it known that I, JUSEKE FUJI, citizen of Japan, residing at Fort Stanton, in the county of Lincoln and State of New Mexico, have invented new and useful Improvements in Parachutes, of which the following is a specification.

This invention relates to parachutes or safety devices for aviators and the operators of flying machines of the heavier than air and lighter than air type, as well as balloonists.

The object of the present invention is to provide safety apparatus of the parachute type which may be worn upon the body of an aviator and which may be quickly released when danger approaches or after an aviator is thrown from or drops from aircraft.

One of the principal objects of the present invention is to provide a compact arrangement of parachute in conjunction with a carrying case resembling and worn after the manner of a knapsack, the knapsack acting as a back cushion for the aviator while seated in his airplane or other type of aircraft. The structure or formation of the parachute proper is such that it will fold for compact storage in the casing or container and yet be of sufficient size to form a practical and safe parachute which will resist the fall of the aviator to an extent which will insure his safe delivery upon the ground without injury. The entire structure including the parachute and the carrying case or knapsack need not weigh more than twenty pounds and will hardly be noticeable on the part of the aviator while comfortably seated in his aircraft.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangement of parts, herein described, illustrated and claimed.

In the accompanying drawings:—

Figure 1 is a side elevation of the improved device as it appears when in actual use.

Fig. 2 is a top plan view of the device when closed.

Fig. 3 is a rear elevation thereof with the casing open and the parachute shown partly in full and partly in dotted lines.

Fig. 4 is a fragmentary perspective view showing the releasing means.

Fig. 5 is a fragmentary vertical section showing the spring for opening the casing when the releasing means is operated.

Fig. 6 is a fragmentary vertical section showing the connecting means between the parachute and the casing.

The improved apparatus, comprises, as one of the essential elements thereof, a light weight parachute comprising a body 1 of light, strong textile material such as silk which is capable of being compactly folded within the casing hereinafter referred to. The body 1 is of balloon like formation and comprises a bottom hoop 2 of spring steel or other metal. This hoop is preferably made quite thin so that it may be compactly folded as indicated in Fig. 3 of the drawings preparatory to placing the parachute in the casing.

The casing or container for the parachute resembles an ordinary knapsack worn upon the back, said casing comprising a front section 3 and a rear section 4, said front and rear sections being connected together by a hinge pin or rod 5. Interposed between the front and rear sections 3 and 4 and surrounding the rod or hinge pin 5 is a spring 6 embodying coils 7 which embrace the rod or pin 5, and two divergent arms 8, which, when the casing is closed, bear against the front and rear sections thereof with a pressure sufficient to throw the rear section 4 away from the front section 5, when the fastening means hereinafter described are released, for the purpose of permitting the parachute to freely escape and assume its operative or useful position as show in Fig. 1. A hanger or connecting strap 9 is secured firmly between the front and back plies of the front section 1, the front ply 10 being of some soft material such as plush or felt, and suitable padding 11 being interposed between the plies of the front section 3 to form a comfortable cushion for the back of the aviator or wearer of the safety device. From the strap or hanger 9, flexible connections 11′ extend to the resilient hoop 2 of the parachute. The construction described enables the parachute to be compactly folded and stored between the front and rear sections of the knapsack like casing or container.

The front section 3 of the casing comprises at the top thereof shoulder straps 12, and at a lower elevation, it embodies a belt or body strap 12′ having a suitable fastening device such as a buckle. This enables the entire device to be securely fastened to and worn upon the body of the operator.

The means for holding the casing closed and releasing the fastening means therefor, comprises a button 14 secured fixedly to the rear section 4 of the casing adjacent to the top edge thereof. In conjunction with the button 14, I use a lever 15 which is pivotally mounted at 16 on one of the shoulder straps. At one extremity the lever 15 is provided with a socket fastener 17 such as a glove fastener which is adapted to engage the button 14. At its opposite or forward extremity, the lever 15 has attached thereto a pull cord 18 which passes through a guide 19 and has attached to its forward extremity a finger grip or ring 20. When the operator desires to release the fastening means for the casing and permit the parachute to escape therefrom and assume its useful position, he grasps the ring 20 and gives a quick pull. This moves the socket member 17 out of engagement with the button 14 with the result stated. A spring 21 interposed between and connected to the lever 15 and the adjacent shoulder strap, is used to prevent accidental release of the fastening means employed to hold the casing closed. When the parachute assumes its proper position, it is located directly above the head of the aviator and therefore maintains him in an upright position with his feet in proper position to effect a safe landing. The device is always carried by the aviator and a quick pull on the ring 20 is all that is necessary to enable a safe landing to be effected. Ordinarily the balloon will be in the neighborhood of fourteen feet in diameter and of sufficient size to contain a sufficient number of cubic feet of air to render the device as a whole absolutely safe and reliable.

I claim:—

In a safety device for aviators, the combination of a container comprising front and rear sections having a hinge connection at their lower edges, fastening means for securing the upper free edges of said sections together, a spring for forcibly opening said sections when disconnected, a parachute attached to the upper edge of one of said sections and comprising a balloon like body of fabric and a self-expanding spring hoop to which the bottom edge of said body is fastened, said parachute being adapted to be compactly folded and placed between the front and rear sections of said casing, the fastening means for said casing comprising a button attached to one section of the casing adjacent to the top free edge thereof, a lever fulcrumed intermediate its ends on a part of the device and having a socket member at one end detachably engaging said button, and manually controlled operating means connected with the other end of said lever and arranged within reach of the aviator, said casing embodying shoulder straps, and a body embracing strap.

In testimony whereof I affix my signature.

JUSEKE FUJI.