

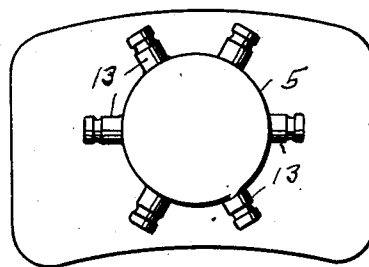
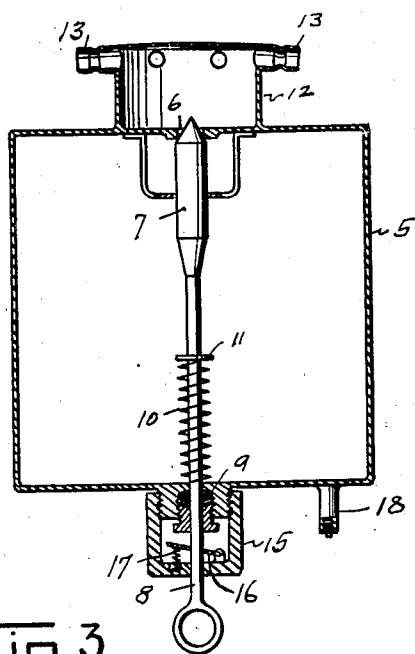
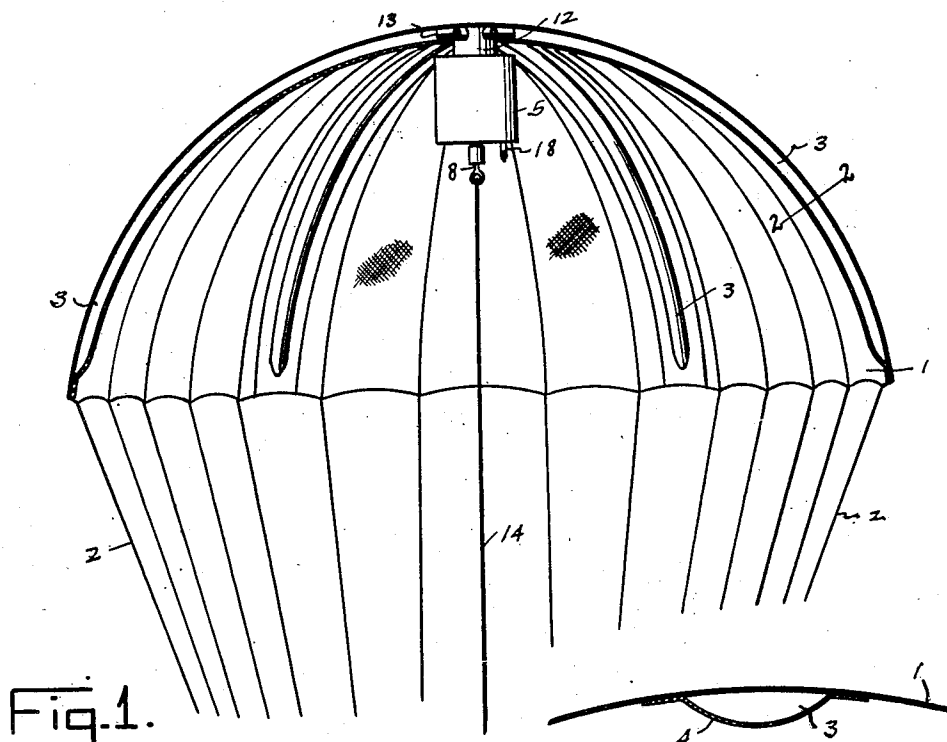
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PARACHUTE

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PARACHUTE

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This invention relates to new and useful improvements in a parachute.

One object of the invention is to provide, in a parachute, means for insuring the opening of the parachute when it is attempted to use the same.

It often happens that when it is attempted to use a parachute the same fails to open, when the rip cord is pulled, and for that reason fails to catch the air and accordingly does not have any sustaining effect. It is the object of this invention to provide means for assuring the prompt opening of the parachute when it is attempted to use the same.

With the above and other objects in view this invention has particular relation to certain novel features of construction, operation and arrangement of parts, an example of which is given in this specification and illustrated in the accompanying drawings, wherein:

Figure 1 shows a vertical sectional view of the parachute.

Figure 2 shows a fragmentary cross sectional view taken on the line 2—2 of Figure 1.

Figure 3 shows a vertical sectional view of a container for pressure fluid employed and,

Figure 4 shows a top plan view thereof.

Referring now more particularly to the drawings wherein like numerals of reference designate similar parts in each of the figures, the numeral 1 designates the cover, or body, of the parachute which is formed of suitable flexible fabric or other flexible material, and which has the sustaining cords 2 for the usual purpose and arranged in the usual manner.

The body 1 has a plurality of radial pockets 3 extending from the central portion thereof approximately to the margin thereof. These pockets are preferably formed by sewing, or otherwise securing, the elongated flaps 4 to the material of the body 1, the outer ends of said pockets being closed. Within and secured to the body of the parachute there is a container 5 provided to contain air or gas under compression. The compressed fluid may be released through a suitable valve seat 6 which is controlled by a valve 7 having the stem 8 depending therefrom and working through a stuffing box 9 in the bot-

tom of the container. The valve is normally held closed by means of a coil spring surrounding the stem and interposed between the bottom of the container and the abutment 11 fixed on said stem. Within the top of the container there is a manifold 12 having the radial tubes 13, which enter the adjacent ends of the respective pockets.

The rip cord 14 is attached to the lower end of the stem 8.

Upon an attempted descent when the rip cord is pulled to release the parachute, the valve 7 is at the same time opened. The stem 8 works also through a housing 15 which is attached to the lower end of the casing 5 and in this housing there is a hinged disc 16 having a bearing through which the stem 8 works and the free margin of this disc is seated on the coil spring 17. When the valve 7 is pulled into open position, the disc 16 will frictionally engage the stem 8 and hold the valve open and the fluid in the container 5 will escape out through the seat 6 and through the manifold 12 and tubes 13 into the radial pockets 3 and will distend said pockets and open the parachute so that it will catch the air and will properly operate in the usual and expected way. The container 5 has a valve controlled filling tube 18 through which said container may be filled with pressure fluid when the valve 7 is closed.

The drawings and description disclosed what is now considered to be a preferred form of the invention, by way of illustration only, while the broad principle of the invention will be defined by the appended claims.

What I claim is:

1. A parachute having a body and a plurality of elongated radial pockets incorporated into the body, a container arranged within said body having a manifold incorporated therein provided with radial tubes which enter the adjacent ends of the respective pockets; a valve seat between the container proper and the manifold, a downwardly opening valve in the container having an extended stem which is exposed beneath the container, a yieldable member normally holding the valve in position to close

said seat and a release cord attached to the stem through which said valve may be opened.

2. A parachute having a body and a plurality of elongated pockets incorporated into the body, a container having an expansible fluid therein, and secured within said body, a manifold carried by the container having radial tubes which enter the adjacent ends of the pockets, there being a valve seat through which the fluid may pass from the container into the manifold, a downwardly opening valve normally closing said seat, a stem depending from the valve and whose outer end is exposed, a yieldable member normally holding the valve closed, a housing attached to said container, a hinged disc within the housing having a bearing through which the stem works, a yieldable seat supporting the free edge of said disc and a release cord attached to the outer end of the stem.

In testimony whereof I have signed my name to this specification.

JOSEPH E. CASTNER.

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