

[54] SAFETY DEVICE FOR AIRPLANES LAND SAFETY

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[51] Int. Cl. .... B64d 17/80

[58] Field of Search ..... 244/139, 138, 137, 140, 244/151

[56]

References Cited

UNITED STATES PATENTS

1,853,874	4/1932	Monteleone .....	244/139
2,115,932	5/1938	Poindexter et al.....	244/140
2,352,721	7/1944	Krahel .....	244/139
2,719,685	10/1955	Bender et al. ....	244/139
3,051,420	8/1962	Novak.....	244/139
3,315,920	4/1967	Caughton.....	244/139

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[57]

ABSTRACT

An airplane is provided with folded parachutes and means when actuated for causing the parachutes to be opened to lower the airplane safely to the ground in the event of engine failure or the like.

2 Claims, 8 Drawing Figures

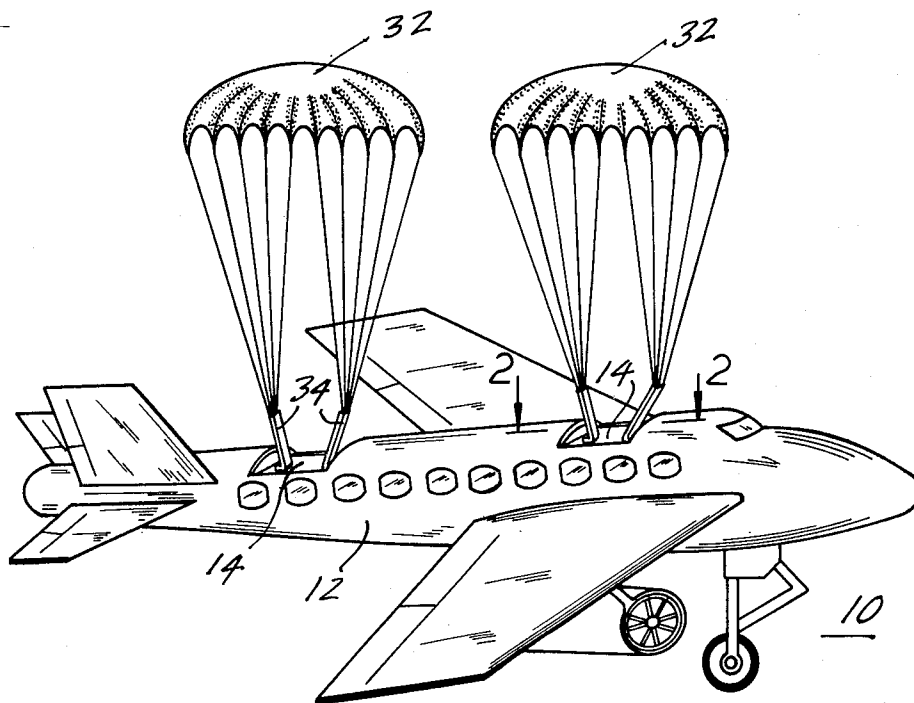


Fig-1

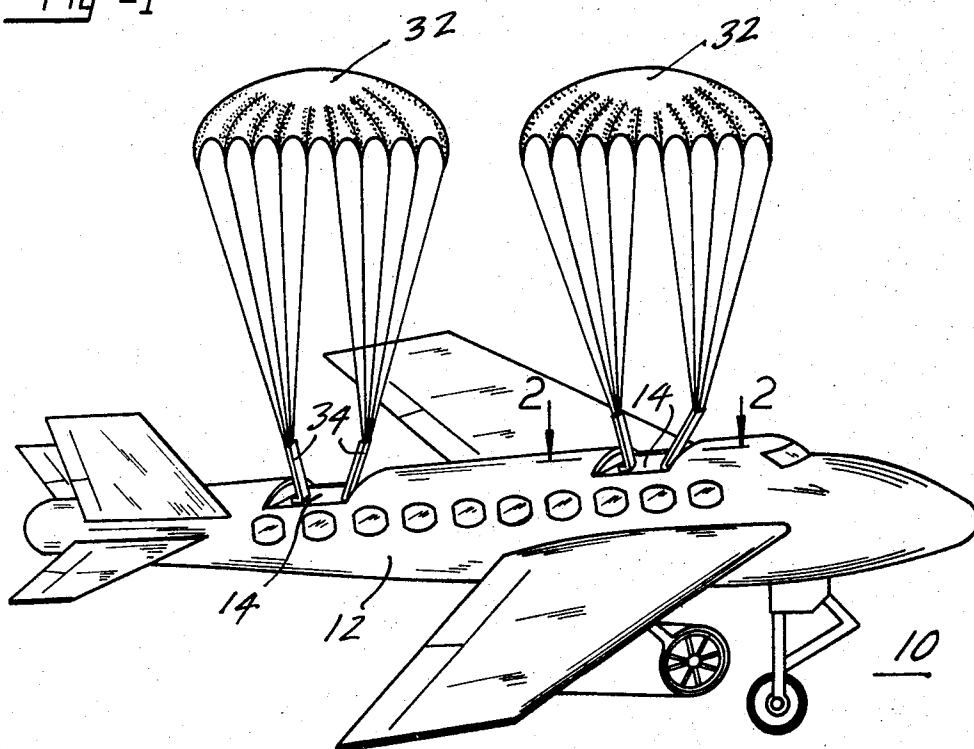


Fig-2

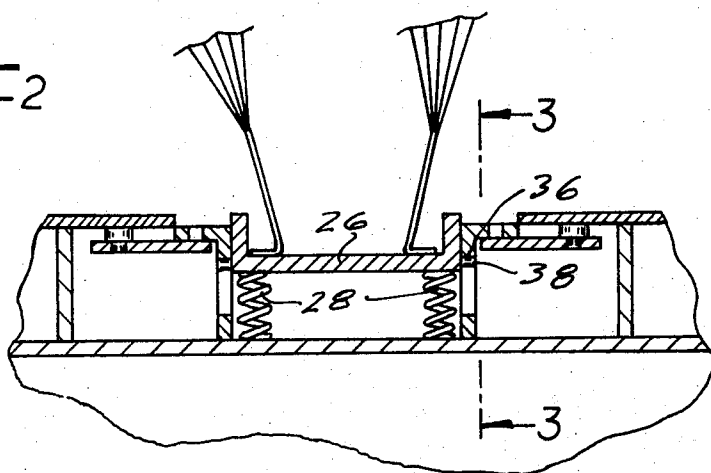


Fig - 3

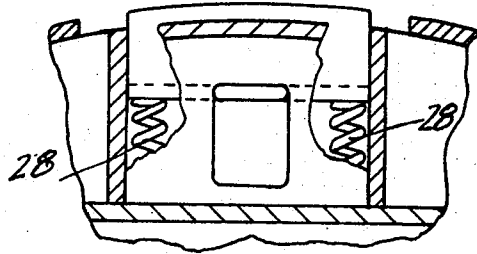


Fig-2a

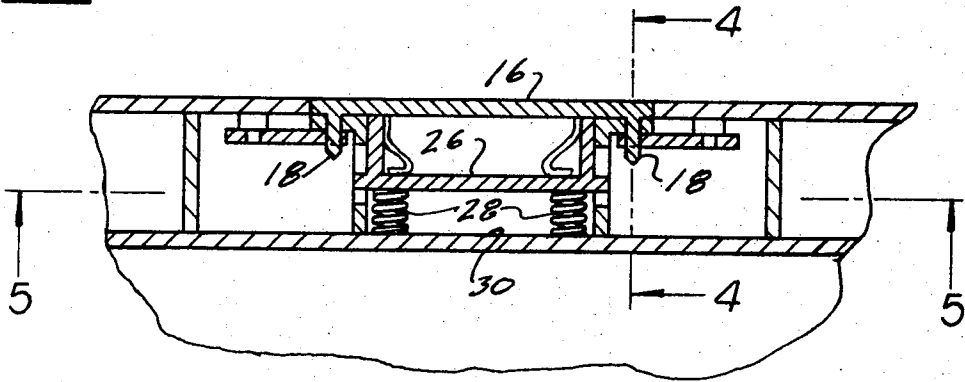


Fig-5

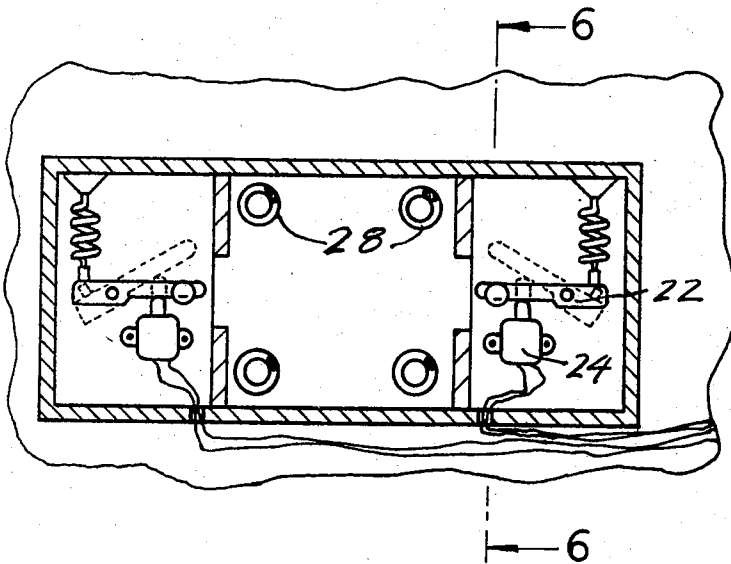
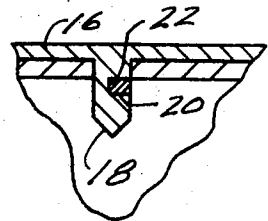


Fig-4



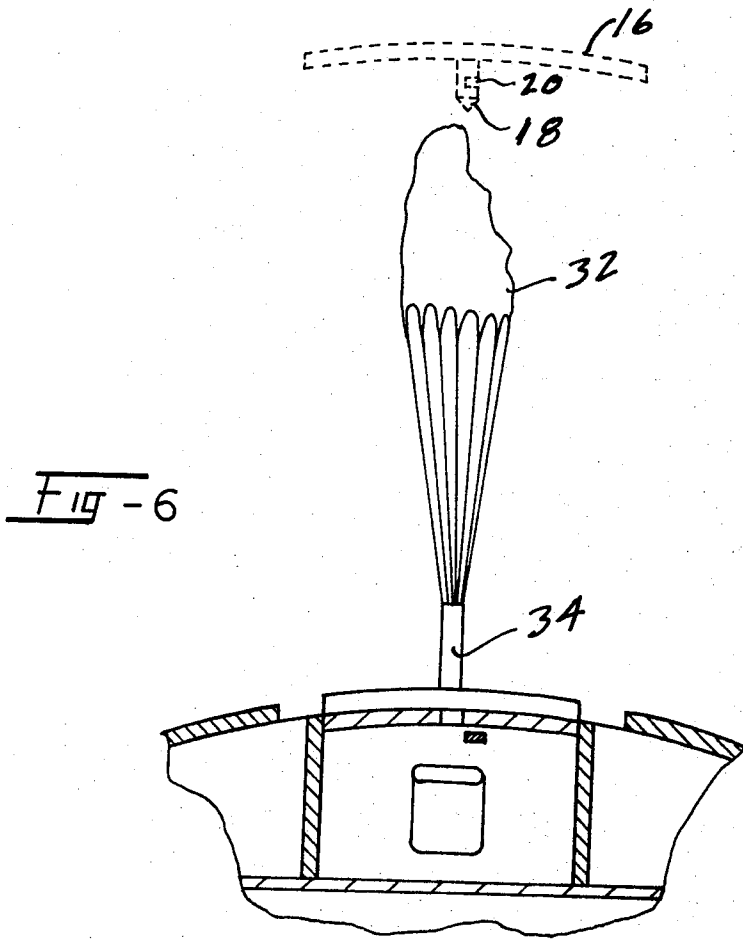
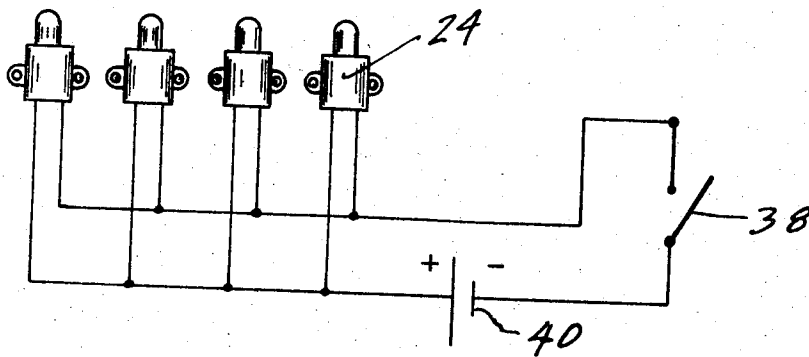


Fig - 7



## SAFETY DEVICE FOR AIRPLANES LAND SAFETY

## SUMMARY OF THE INVENTION

This invention is directed toward an airplane provided with protection apparatus whereby the airplane can be lowered slowly and safely to the ground in the event of engine failure or the like.

To this end, the airplane has a fuselage with two vertical recesses disposed along a longitudinal center line. First and second covers are used, each cover being detachably secured in a corresponding recess. First means are provided, each first means having a first position at which each cover is locked in place and having a second position at which each cover is unlocked. Spring loaded second means is disposed in each recess for forcing each unlocked cover out of each recess.

Two parachutes are used. Each parachute is stored in collapsed form in a corresponding second means when the corresponding cover is locked and being released to be opened in the air stream when the cover is unlocked and forced out.

## BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a side view of my invention in use;

FIG. 2 is a view taken along line 2—2 in FIG. 1;

FIG. 2a is a view similar to FIG. 2 but showing parts in different position;

FIG. 3 is a view taken along line 3—3 in FIG. 2.

FIG. 4 is a view taken along line 4—4 in FIG. 2a;

FIG. 5 is a view taken along line 5—5 in FIG. 2a;

FIG. 6 is a view taken along line 6—6 in FIG. 5; and

FIG. 7 shows an electrical circuit employed in my invention.

## DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to FIGS. 1-7, an airplane 10 has a fuselage 12 with two vertical recesses 14 disposed in spaced position along the longitudinal centerline and normally closed off by flush top covers 16. Each cover has spaced downwardly extending prongs 18 with side disposed slots 20. These slots are normally engaged by arms 22 of solenoids 24 which normally lock the cover in position.

Disposed in each recess below the cover is a hollow housing 26 open at the top and having vertical walls bearing against the bottom of the cover. Coil springs 28 disposed vertically at each corner are disposed between the bottom of each housing and the bottom of each recess 30.

A parachute 32 is folded and fits into each housing, being secured to each of two oppositely disposed supports 34 in the housing. Each support 34 is an inclined bracket wherein the shorter leg is secured to the housing 26 and the longer outstanding leg is flexible and attached to a parachute at its outermost end (see FIG. 2). Before ejection (see FIG. 2a) the support 34 is shown wholly within the cavity closed by cover 16 with the

outstanding leg bent against the side walls of housing 26.

The recess has a shoulder portion 36 providing a stop as explained below.

In normal use, the covers are in position and the parachutes are folded in place.

Should the plane engines fail or other condition occur where use of the parachutes is required to lower the plane safely to ground, switch 38 is closed, completing a circuit to all solenoids in parallel through battery 40. The solenoids then are energized and swing arms 22 out of slots 20. Springs 28 then push the extensions 38 of housings 26 upward against portions 36 whereby the covers are thrown overboard and the parachutes are moved into the windstream and are opened for use as shown.

While certain novel features of this invention have been shown and described and are pointed out in the annexed claims, it will be understood that various omissions, substitutions and changes in the forms and details of the device illustrated and in its operation can be made by those skilled in the art without departing from the spirit of the invention.

What is claimed is:

1. An airplane fuselage in combination with emergency parachute safety means, comprising a recess in the fuselage enclosed by a housing, having bottom and sidewalls, and a cover normally in a closed position sealing the opening encompassed by the sidewalls, said cover having an outer surface conforming to the contour of the outer fuselage surface providing thereby a smooth surface continuous with the outer fuselage surface, including a latch engaging the cover for retaining the cover in the normally closed position, said cover having an inner surface abutting the housing along the ends of the sidewalls, including release means engaging the latch continuously, said release means being responsive to a predetermined signal to move the latch to a release position releasing the cover, said housing being slidably mounted in said recess for outward transverse movement, including resilient means biasing said housing outward against the cover inner surface, in combination with a support attached to said housing bottom having a parachute attached to said support, wherein the support and parachute are normally contained within said recess and are ejected to the external atmosphere upon movement of the latch to the release position, said housing having stops adjacent the bottom thereof, said stops projecting into slots in opposed walls of said recess.

2. The combination of claim 1 wherein the latch comprises a latch normally biased to the latched position by a spring, said cover including an inwardly extending prong with a slot adapted to receive said latch transversely when in the closed position, including a shoulder coacting with said stop limiting outward movement of said housing to a predetermined position, said shoulder being integral with the fuselage and located between the cover and outer end of the slot.

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