

C. M. GOULD.
ATTACHMENT FOR FLYING MACHINES.
APPLICATION FILED FEB. 2, 1911.

1,045,696.

Patented Nov. 26, 1912.
2 SHEETS—SHEET 1.

Fig. 1.

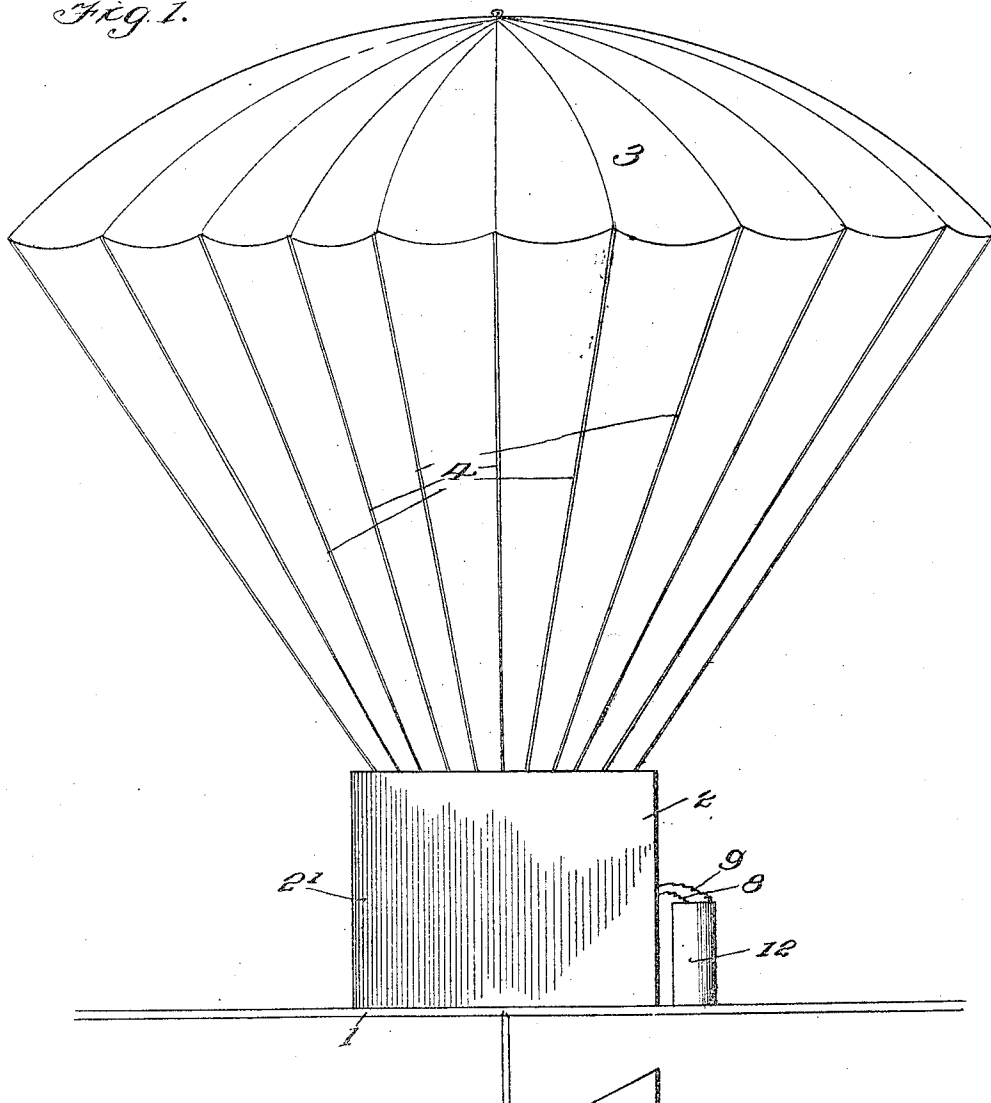
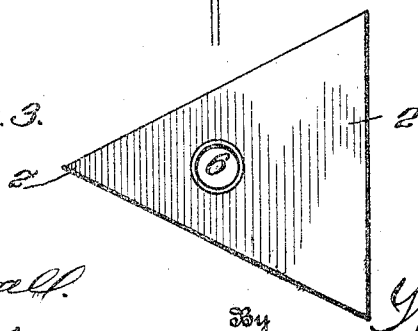


Fig. 3.



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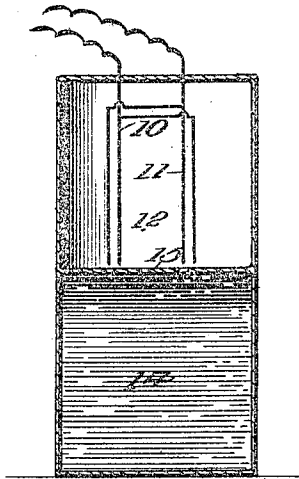
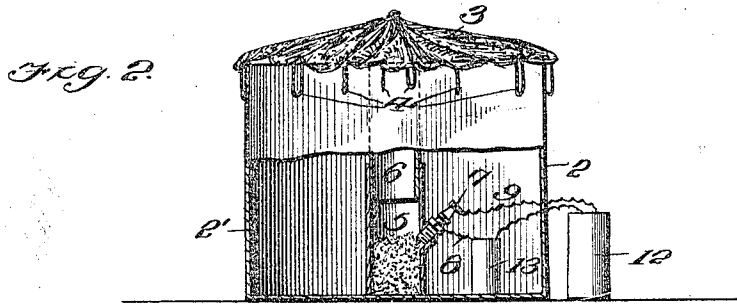
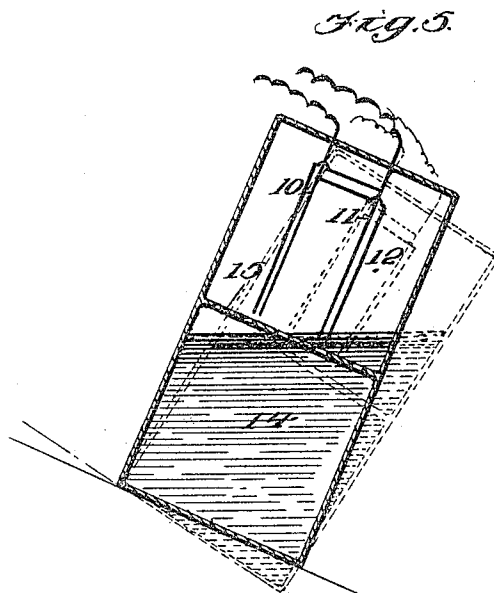


Fig. 4.



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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR FLYING-MACHINES.

1,045,696.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed February 2, 1911. Serial No. 606,234.

To all whom it may concern:

Be it known that I, CHAUNCEY M. GOULD, a citizen of the United States, residing at Collinsville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Attachments for Flying-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in attachments for flying machines.

An object of this invention is the provision of a device of this character adapted to be attached to a flying machine of any type, for the purpose of preventing any accidents to the passengers, caused by the machine turning over when in action.

Another object of this invention is the provision of a device of this character, comprising a parachute arrangement, adapted to be secured to an airship and be automatically thrown into an operative position upon the undue tilting of the machine when in operation.

A further object of this invention is to improve and simplify devices of this character, rendering them comparatively simple and inexpensive to manufacture, reliable and efficient in use, and readily operated.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which—

Figure 1 is a side elevation of my invention with the parachute extended; Fig. 2 is a view similar to Fig. 1 with the parachute folded; Fig. 3 is a plan view of the explosive-containing receptacle, and Figs. 4 and 5 are sectional views of the liquid conductor-containing receptacle.

Referring to the drawings by characters of reference, the numeral 1 designates generally a portion of a flying machine of any desired type, having secured to the upper side thereof by any suitable means a metal receptacle 2, the opposite sides of which are converged forwardly, as at 3, for the purpose of cutting the wind when the machine is in motion. A parachute 3 is secured by means of ropes or cables 4 to the upper edges of the receptacle 2, or through

the receptacle and to the upper plane of the machine if so desired.

A cylindrical tube 5 is located centrally within the receptacle 2, and contains powder or any desired explosive gases. A conduit 6 leads from the upper end of the tube 5 through the top of the receptacle 2 and beneath the parachute 3.

A suitable ignition apparatus 7 is located within the tube 5, and is connected by means of flexible conductors 8 and 9 to the contact points 10 and 11 located within a tube 12 secured to the machine at any desired point, but preferably adjacent the receptacle 2.

A battery 13 is located within the receptacle 2, and is connected with the intermediate ends of the flexible conductor 8.

The lower portion of the tube 12 contains a quantity of mercury 14, or any other desirable liquid conductor, while a partition 15 is located slightly above the mercury 14 for the purpose of preventing the same from splashing against the contact points 10 and 11 when the machine is in action.

The operation of the device is as follows: Assuming that the machine is in motion and that a gust of wind or the like strikes against the same, causing it to tilt in any direction, the upper surface of the mercury which always remains in a horizontal position will obviously, as the tube 12 is tilted engage the contact points 10 and 11 in one side of the said tube thereby closing the circuit and causing the ignition device 7 to make a spark within the receptacle 5, igniting the contents and causing gases to be forced through the conduit 6 beneath the parachute 3, which will evidently cause the said parachute to open and prevent any accident to the flying machine. If desired, a suitable push button can be electrically connected with the explosive substance, whereby the same can be ignited at will, in case it is desired to use the parachute.

From the foregoing disclosure, taken in connection with the accompanying drawings, it will be readily seen that an attachment for flying machines is provided for which will fulfil all of the necessary requirements of such a device.

Having thus fully described this invention, what I claim as new and desire to secure by Letters Patent is:

1. The combination with a receptacle, a tube contained within said receptacle, an explosive substance contained within the

5 tube, a parachute secured to the receptacle, a tube located adjacent said receptacle, means within the first mentioned tube for igniting the contents thereof, flexible conductors leading from this last mentioned means to the tube located adjacent the receptacle, a battery in the circuit with the flexible conductors and engaging one of the said conductors, means within the tube 10 which is located adjacent the receptacle for making and breaking the current and igniting the explosive substance and opening the parachute upon the tilting of the said tube which is located adjacent the receptacle.

15 2. The combination with a flying machine, of a receptacle located thereon, a tube located within the receptacle, an explosive substance contained within said tube, a conduit leading from the tube to the top of the receptacle, a parachute secured to the top 20 of the receptacle in the path of said conduit, means located within the tube for igniting the contents thereof, a tube located adjacent the said receptacle, flexible conductors connecting the means for igniting the contents of the first mentioned tube with the second mentioned tube, a battery in the circuit with said conductors and engaging one of them, a liquid conductor located with the 25 second mentioned tube and adapted to engage the ends of the flexible conductors and

make and break the current upon the tilting of the flying machine, substantially as and for the purposes set forth.

3. In a safety device for airships, a parachute case having an explosion chamber, explosive cartridges in said chamber, electric exploders in said cartridges, an electric circuit connected with said exploders, and means for automatically closing said circuit 40 when said airship tilts.

4. In a safety device for airships, a parachute attached to said airship normally in a non-operative position, explosive means for putting said parachute in operative position, and electrical means automatically actuated by the tilting of the airships for producing the required explosions. 45

5. In a safety device for airships, a parachute attached to said airship normally in a non-operative position, explosive means for putting said parachute in operative position, and means automatically actuated by the tilting of the airship for producing the required explosions. 50

In testimony whereof I affix my signature in presence of two witnesses. 55

CHAUNCEY M. GOULD.

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