Feb. 19, 1946. A. Y. LESLIE 2,395,006

SIGNAL BALLOON

Filed Feb. 1, 1943

FIG.1.

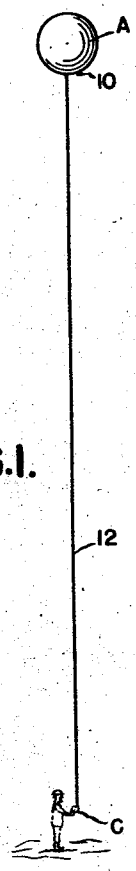


FIG.5.

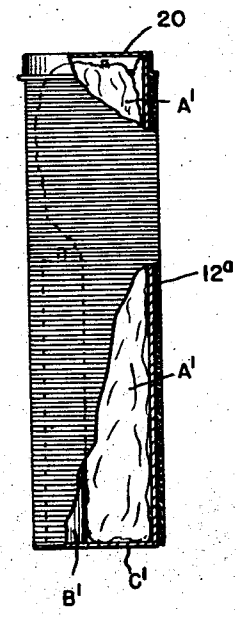
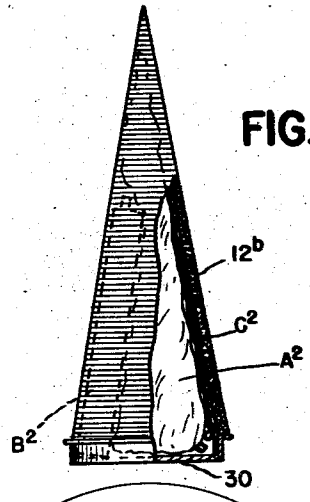


FIG.6.



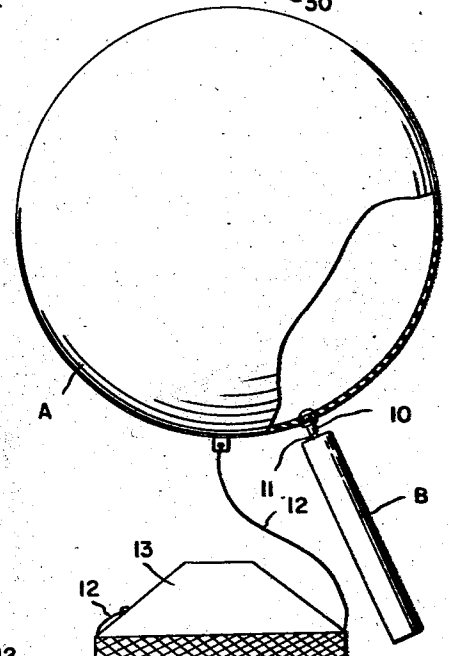


FIG.2.

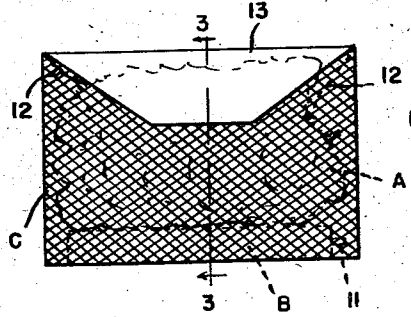
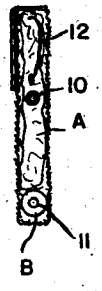


FIG.3.



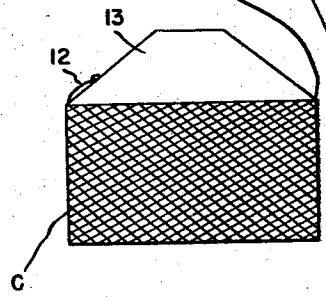


FIG.4.

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SIGNAL BALLOON

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3 Claims. (Cl. 206—1)

This invention relates generally to signal balloons and refers more particularly to a signal kit including a balloon capable of rising in the air to a suitable height or elevation while held captive by a person or object on the ground or in a boat or raft to indicate to observers the position of such person, object, boat or raft for rescue purposes.

One of the essential objects of the invention is to provide a signal kit of the type mentioned wherein the balloon in deflated condition and a gas cartridge or other suitable device for inflating the balloon are carried in a bag or container made from or carrying a cord, string or other suitable unravelable material capable of serving as an anchorage line for the balloon after it is inflated and has been permitted to rise as aforesaid. Thus, the kit comprises a compact package which may be conveniently carried or stored before being used.

Another object is to provide a signal kit that is simple in construction, economical to manufacture and effective in operation.

Other objects, advantages and novel details of construction of this invention will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawing, wherein:

Figure 1 is a diagrammatic view illustrating the adaptation of the kit for signal purposes;

Figure 2 is an elevational view of the knitted bag containing the deflated balloon and gas cartridge;

Figure 3 is a vertical sectional view taken substantially on the line 3—3 of Figure 2;

Figure 4 is a view of the bag and balloon after the latter is inflated, and showing the gas cartridge applied to the valve of the balloon for inflation purposes, parts of the balloon being broken away and in section;

Figure 5 is a fragmentary elevational view of a slight modification;

Figure 6 is a fragmentary elevation of another modification.

Referring now to the drawing, A is a balloon, B is a gas cartridge for inflating the balloon so that it will rise in the air, and C is a knitted bag in which the balloon A in deflated condition and the gas cartridge B may be carried before being used.

As shown, the balloon A is a conventional lighter-than-air hollow spherical bag of silk or other tough, light, non-porous material and has a normally closed valve 10 through which it may be inflated or deflated. The valve 10 may be conventional in construction and is operable to prevent accidental escape of gas from the balloon A after it is inflated. If desired, the balloon A may be colored or coated with a luminous substance so that it may be more easily and readily observed when the balloon is floating in the air during the day or at night.

The gas cartridge B is preferably in the form of a cylinder provided at one end with a normally closed valve 11 that is adapted to be engaged in the usual manner with the valve 10 of the balloon when the latter is to be inflated. Preferably the cartridge B contains a compressed gas such as hydrogen gas or other fluid that is lighter-than-air to inflate and carry the balloon upwardly into the air.

The bag C may be knitted or otherwise made so that it may unravel to provide an anchorage cord or string 12 for the balloon A. As illustrated in Figure 1 the thread or string from which the bag C is made is sufficiently long to permit the balloon to rise a sufficient distance in the air for signal purposes and to hold the balloon captive at such elevation so that it will indicate to observers the position of the person, object, etc., to be found. Preferably one end of the cord or string 12 is fastened to the flap or closure 13 of the bag while the other end is fastened to the balloon. Thus, the flap 13 may be held by a person, as in Figure 1, or anchored to an object on the ground or in a boat or raft after the balloon is released following inflation thereof so that the balloon will be held captive while the cord or string from which the bag C is made unravels and permits the balloon to rise to the proper elevation for signal purposes.

Before being used as aforesaid the balloon A in deflated condition and the gas cartridge B may be carried in the bag C as illustrated in Figures 2 and 3. Thus, the assembly provides a compact package that may be conveniently carried by a person or stored in a boat, raft, or in a motor vehicle, airplane and the like.

In Figures 4 and 5 I have illustrated slight modifications wherein the anchorage line for the balloon is wound or wrapped upon a separate container for the deflated balloon and gas cartridge. In Figure 4 the line 12^a is wound upon a substantially cylindrical container C′ that is closed at one end and open at the other. A cap 20 is provided for the open end of the container, and the line 12^a is terminally connected to the container C′ and balloon A′. The gas cartridge B′ is received in the container C′ beside the balloon A′. In Figure 6 the container C^2 is conical in con-

figuration and has a removable cap 30. The anchorage line 12b is terminally connected to the container C2 and balloon A2, and the gas cartridge B2 is received in the container beside the deflated balloon. In these kits the lines 12a and 12b, respectively, are adapted to unwind from the containers C' and C2, respectively, as the respective balloons A' and A2 rise. The containers may be made of any suitable sheet material such as cardboard and may be any size desired.

Thus, from the foregoing, it will be readily apparent that a kit of the type described may be carried by hunters, aviators, seamen and other persons who may become lost, grounded or stranded and that may be used by them when necessary to attract attention of rescue parties.

What I claim as my invention is:

1. A signal kit having a normally deflated balloon, a device for inflating the balloon so that it will rise and float in the air, and a container for both said deflated balloon and device made of cord and adapted to be unraveled by the rising action of the balloon when inflated, the balloon being attached to the container by the cord from which the container is made so that the cord is operable when the container is unraveled by the rising action of the inflated balloon to hold the latter captive.

2. A signal kit comprising a normally deflated balloon, a device for inflating said balloon so that it will rise and float in the air, and a container for both said deflated balloon and device, a portion of said container being made of string-like material and adapted to be unraveled by the rising action of the balloon when the latter in inflated, the balloon being connected to the container by the string-like material from which the portion aforesaid of the container is made so that the string-like material is operable when said portion of the container is unraveled by the rising action of the inflated balloon to hold the latter captive.

3. A signal kit comprising a normally deflated balloon, a device for inflating said balloon so that it will rise and float in the air, a bag for both said deflated balloon and device, said bag having a knitted portion formed from string-like material and adapted to be unraveled by the rising action of the balloon when the latter is inflated, said bag having a second portion connected to one end of the string-like material from which the knitted portion aforesaid is made, the balloon being connected to the opposite end of the string-like material from which the knitted portion aforesaid is made, the construction aforesaid being such that the string-like material and second portion of the bag are operable when the knitted portion of the bag is unraveled by the rising action of the inflated balloon to hold the latter captive.

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