

[54] INFLATABLE SIGNAL DEVICE

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[58] Field of Search 141/311, 313, 386, 38, 141/114, 223, 224; 116/DIG. 9, 124 B; 251/12; 137/231; 46/90

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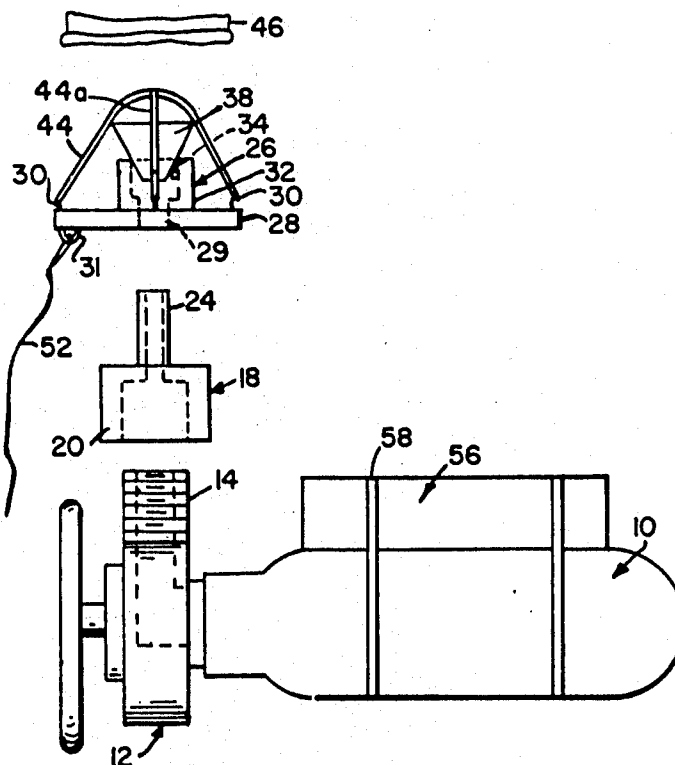
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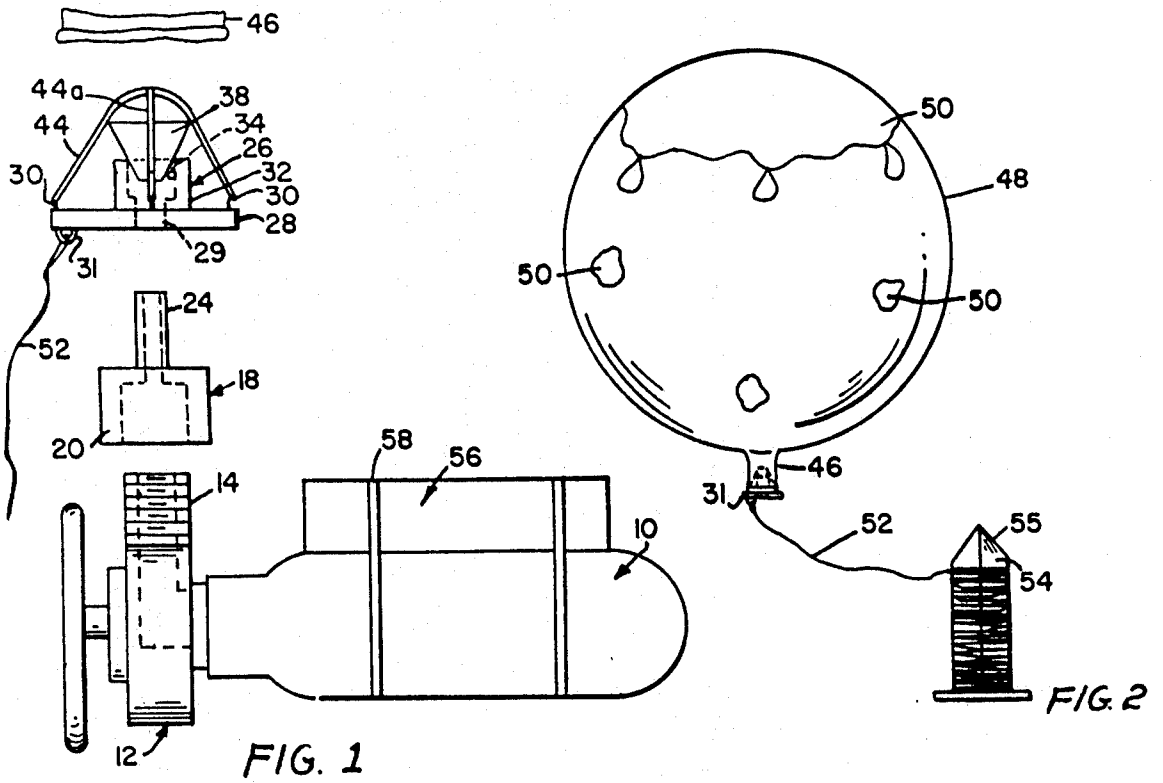
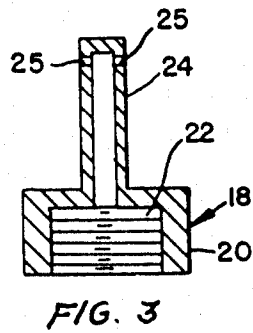
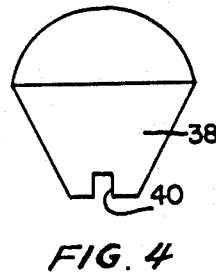
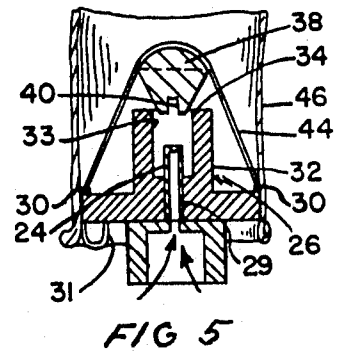
[57] ABSTRACT

An inflatable signal device has a hollow adapter suitable to communicate with a control valve attached to a tank holding gas. Another hollow adapter is set in and connects with an inflatable balloon and with said tank adapter. A sealed member seats on and normally closes said another adapter, but is movable off said seat by flow of gas when said control valve is opened.

The principal object of my invention is to provide a simplified mechanism having two adapters which may removably be joined to communicate with each other, one of which stays with a balloon whereby the latter may be filled with gas flowing from a supply tank through said adapter.

3 Claims, 5 Drawing Figures





INFLATABLE SIGNAL DEVICE

The foregoing and other objects which will appear as the nature of the invention is better understood, may be accomplished by a combination and arrangement such as is disclosed by the drawings. The nature of the invention is such as to render it susceptible to various changes and modifications, and, therefore, I am not to be limited to the construction disclosed by the drawings, nor to the particular arrangement described in the specification; but am entitled to all such changes therefrom as fall within the scope of my claims.

In the drawing:

FIG. 1 is an exploded view showing the parts forming my signal device, and a tank to hold gas, which latter is supplied to my device.

FIG. 2 is a reduced elevational view showing an inflated balloon and a string on a spool connected to said balloon.

FIG. 3 is cross-sectional view, enlarged, showing a supply adapter.

FIG. 4 is an enlarged elevational view of a sealer member to seal said balloon adapter.

FIG. 5 is a fragmentary, sectional view, on a reduced size, showing a supply adapter and a balloon adapter in assembled position of use, the latter being in a balloon neck, the sealer member being in open position.

As illustrated, a tank or container 10 is suitable to hold and supply helium or other suitable gas, under pressure. It has a well-known valve 12 attached thereto having an exteriorly screw-threaded neck 14.

A hollow supply adapter 18 has a connector member 20 that is interiorly screw-threaded as at 22 and adapted to connect with said tank valve 12 and it also has an extension or hollow stem 24 having ports or escape openings 25 adjacent its outer end and later referred to.

A second or balloon adapter 25 has an outer flange or collar 28 having an opening 29 therethrough. On said flange floor knobs 30 are provided that preferably curve inwardly, being located adjacent the outer edge of said flange. A ring 31 is also attached to said flange 28 and extends below it. This balloon adapter flange 18 is set in and preferably contacts a neck 46 of an inflatable balloon 48 and may be cemented therein, and it has a hollow extension 32 extending beyond said flange that provides a chamber 33 that is of greater diameter than said flange opening 29. Said extension 32 has a seat 34 later referred to.

A sealer member 38 is shown tapered to fit on said seat 34 and normally close the mouth of said chamber 33. This sealer member may be made of rubber or other yieldable material, and its tapered end portion preferably has a central slot 40 that will initially receive gas that is allowed to flow through said adapters.

A resilient retainer member 44 and another 44a at a right angle thereto, such as a rubber band, extends over

the body of said sealer member 38 and connects with said knobs 30, thus normally holding said sealer member tightly on said balloon adapter 26.

Said balloon is preferably covered with foil or a radar bonnet 50, to pick up signals by radar. A string 52 on a spool is provided to connect with said ring 31 on said adapter 26. Said spool is tapered as at 55 at one end to make it easy for the string to unwind after the balloon commences flight. A casing 56 houses said spool and string, and it is lashed by two bands 58 to said tank 10, hence said string is always at hand to attach to said adapter 26.

When occasion arises to fly said balloon, as when a person is lost, said tank valve 12 is opened, and gas under pressure flows through said supply adapter, ports 25 and balloon adapter 26, thus forcing gas into said chamber 33 and against said sealer member 38. This forces the latter away from said seat 34, which permits gas to enter the balloon 48. When the latter is sufficiently inflated and the string 52 is attached, the valve is closed and the balloon is allowed to float as high as needed in order to be visible to those far away.

What I claim is:

1. A balloon in combination with a supply adapter and a balloon adapter, said adapters being adapted to communicate with each other in position of use, said balloon adapter having an opening therethrough and a seat surrounding said opening, a movable sealer member normally resting on said seat thus closing said balloon adapter, and movable means normally holding said sealer member in closed position on said balloon adapter seat, said sealer member being adapted to be moved away from said seat by pressure of gas from said supply adapter and thus move said movable means and permit gas to enter said balloon, the latter having a neck, said balloon adapter being mounted in said neck and said sealer member being within said neck, said balloon adapter having a flange in contact with the interior of said neck, and having an opening therethrough, said balloon adapter having an extension extending from said flange in the direction of the balloon and having an opening therethrough communicating with the opening in said flange, and said opening in said extension having a greater diameter than said flange opening.

2. The combination of claim 1 including said flange having knobs adjacent the outer edge thereof, said movable means being resilient and extending from the exterior of said sealer member and being connected to said knobs.

3. The combination of claim 1, including said supply adapter having a hollow, cylindrical extension with a sealed outer end and having ports extending laterally and spaced inwardly from said outer end thereof said ports being in communication with said opening in said extension in said position of use.

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