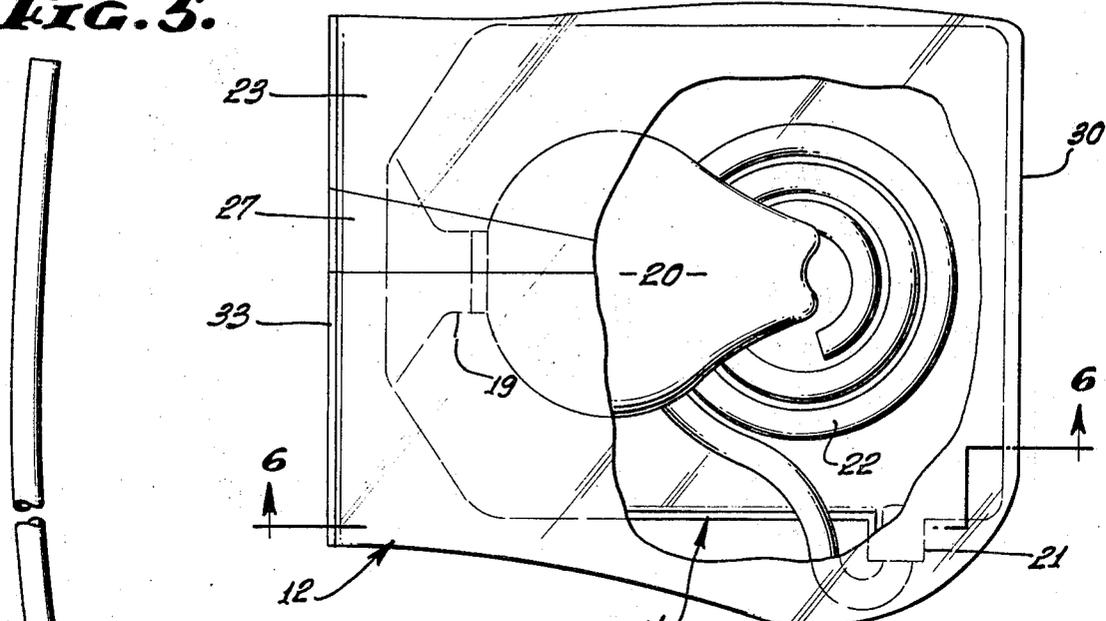


FIG. 2.

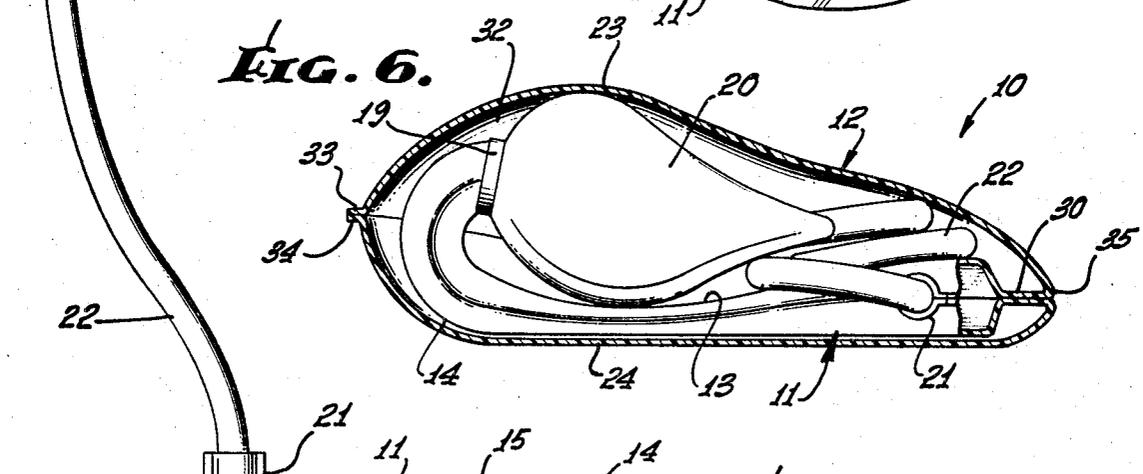
FIG. 3.

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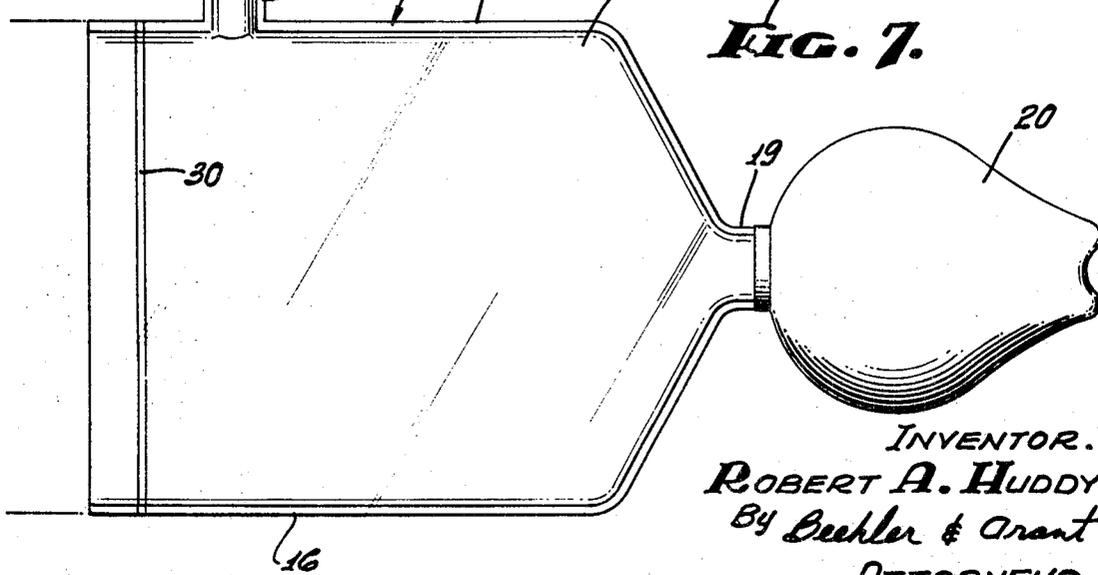
**FIG. 5.**



**FIG. 6.**



**FIG. 7.**



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## ACCUMULATOR-REBREATHER AND STOWAGE BAG COMBINATION

In airplane travel, for example, it is desirable to have light weight compact breathing equipment available in quantity for every passenger. Although the equipment may be used only rarely, it must nevertheless be always available and completely dependable. Also, because it is for use by many persons individually it is requisite that the portions of it which are brought into contact with the user, as well as the oxygen supply line, be kept in a dependably sterilized condition, for storing and shipping.

It is therefore among the objects of the invention to provide a new and improved lightweight sterilized package for a mask, accumulator bag, and oxygen supply line which is compact, convenient, dependable, and to which access can be gained immediately.

Another object of the invention is to provide a new and improved combination bag which includes initially an oxygen accumulator section equipped with a mask and supply line together with a stowage section made of the same material which encompasses and hermetically seals the accumulator section with its appurtenances, the stowage section being so arranged that it can be quickly cut loose and thrown away after the accumulator section and appurtenances have been withdrawn and put to use.

Still another object of the invention is to provide a new and improved combination accumulator and stowage bag of light weight, preferably translucent plastic sheet material, wherein the accumulator section and stowage section are initially formed from a single plastic sheet and divided from each other by merely a sealed separator joint permitting the stowage section to be turned inside out over the remaining portions of the device in order to seal those portions temporarily until the combination is ready for use.

With these and other objects in view, the invention consists in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter set forth, pointed out in the appended claims and illustrated in the accompanying drawings:

In the drawings:

FIG. 1 is a side elevational view of the assembly in the initial stage of construction.

FIG. 2 is a plan view of the device shown in FIG. 1.

FIG. 3 is a cross-sectional view on the line 3-3 of FIG. 2.

FIG. 4 is a cross-sectional view on the line 4-4 of FIG. 2.

FIG. 5 is a plan view partially broken away showing the storage section in use encompassing the accumulator section.

FIG. 6 is a longitudinal sectional view on the line 6-6 of FIG. 5.

FIG. 7 is a plan view of the accumulator section together with appurtenances after it has been removed and is ready for use.

In an embodiment of the invention chosen for the purpose of illustration there is shown, particularly in FIGS. 1, 2, 3, and 4, an elongated bag 10 of thin synthetic plastic material, preferably translucent, which is divided into two sections, namely an accumulator-rebreather section 11 and a stowage section 12.

The accumulator-rebreather section 11 has an upper wall 13 and lower wall 14 joined together by lateral seals 15 and 16, the lateral seals 15 and 16 becoming end seals 17 and 18, respectively. At the junction of the end seals 17 and 18 is a mask connection 19 to which is attached a mask 20. Along the side defined by the lateral seal 16 there is an oxygen supply line connection 21 to which is attached a length of supply line 22.

The remainder of the bag, or sack, consisting of the stowage section 12 is a continuation of the same material which forms the accumulator-rebreather section 11. The stowage section also consists of an upper wall 23 and lower wall 24 joined along opposite edges by lateral seals 25 and 26 respectively. In the upper and lower walls 23, 24, respectively, of the stowage section 12 are pleats 27 and 28. The pleats are normally folded flat against each other and against the side of the bag

and may be formed in various ways, either by having additional material sufficient to form the sheets or by stretching or expanding the material of the walls to form the pleats. The principal purpose of the pleats is to expand the capacity of the stowage section slightly so that it will be larger than the accumulator-rebreather section and the appurtenances attached to it.

The accumulator-rebreather section and stowage section are separated from each other by a relatively wide band or seal 30. The presence of the seal 30 provides a chamber 31 which serves the accumulator-rebreather section and a chamber 32 which is a stowage chamber. In use, oxygen from the supply line 22 enters the chamber 31 where it accumulates and serves as an immediately available source of supply for the mask 20 which is attached to it.

When the accumulator-rebreather section together with the mask and supply line is to be stored, the mask 20 is folded around to a position overlying the upper wall 13 as shown advantageously in FIGS. 5 and 6. At the same time, the hose of the supply line 22 is coiled as shown in FIG. 5 and likewise laid upon the upper wall 13 in a compact arrangement so that the supply line and mask are both located within the lateral perimeter of the accumulator-rebreather section. The stowage section 23 is then turned inside out over the accumulator-rebreather section, during which operation the pleats 27 and 28 expand and, when the stowage section has been pulled into place, free end edges 33 and 34 are sealed with respect to each other, thereby hermetically sealing the chamber 32 in its enlarged condition around the mask supply line and the exterior of the accumulator-rebreather section.

When the device is to be put to use, a cut is made along the outermost portion 35 of the wide band or seal 30. This is sufficient to entirely free the stowage section from the accumulator-rebreather section, without at the same time opening the accumulator-rebreather section. The stowage section can then be pulled entirely free from the accumulator-rebreather section and thrown away. Access is immediately had to the mask 20 which can be promptly placed over the nose and mouth of the user, and the supply line 22, which can be immediately plugged into a source of oxygen supply. The device is then ready for use in the form illustrated in FIG. 7.

By constructing both sections of exactly the same material and at the same time, construction cost is kept down. Assembly costs are likewise minimized by using the same sheet of material folded back upon itself and there sealed upon itself to hermetically seal the appurtenances within a chamber which can be easily sterilized, as for example by ethylene oxide gas. Seals can be tightly made by commercially available heat sealing means such as a heat seal, click or zip type seal. The device in compacted stowed condition as shown and described can be conveniently shipped and stored safely in appreciable quantities, ready for use. When put to use, unnecessary portions of the assembly can be readily discarded and disposed of leaving no extra unnecessary material attached to the portions of the device which are placed in use thereafter.

While the invention has herein been shown and described in what is conceived to be a practical and effective embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is not to be limited to the details disclosed herein but is to be accorded the full scope of the claims so as to embrace any and all equivalent devices.

I claim:

1. A combined breathable air accumulator-rebreather with stowage section comprising: an elongated flexible plastic bag divided transversely into two sections by an air tight seal; the first of said sections being an accumulator-rebreather section for breathable air and having a face mask attached thereto; the second of said sections being of a larger capacity than said first section and opened at an end opposite said air tight seal so as to form a stowage section for said first section and said face mask when folded from its opened end towards and beyond said air tight seal; and means for connecting a source of breathable air to said first section to supply air to said face mask.