

No. 849,887.

PATENTED APR. 9, 1907.

W. F. CLARK.
LIFE SAVING BUOY.
APPLICATION FILED MAR. 28, 1906.

3 SHEETS—SHEET 1.

Fig. 2.

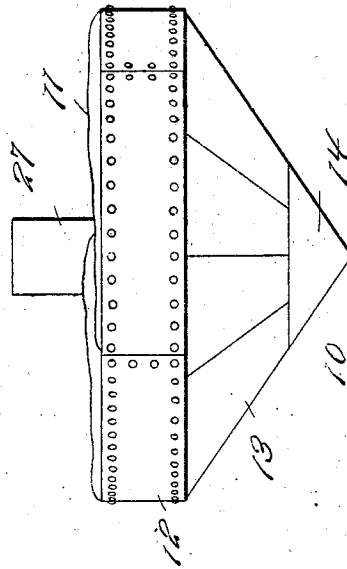
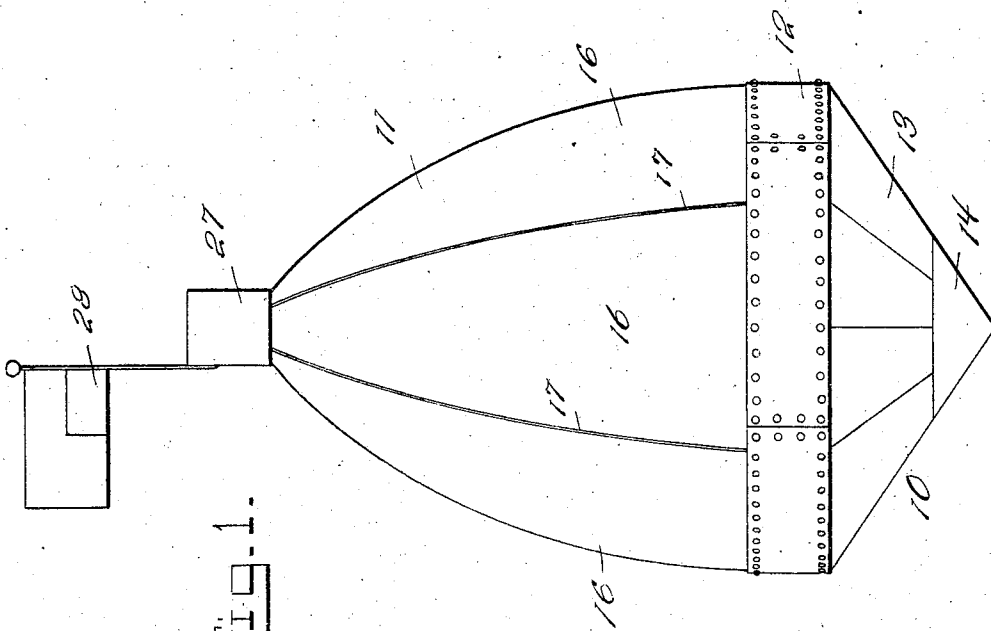


Fig. 1.



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3 SHEETS—SHEET 2.

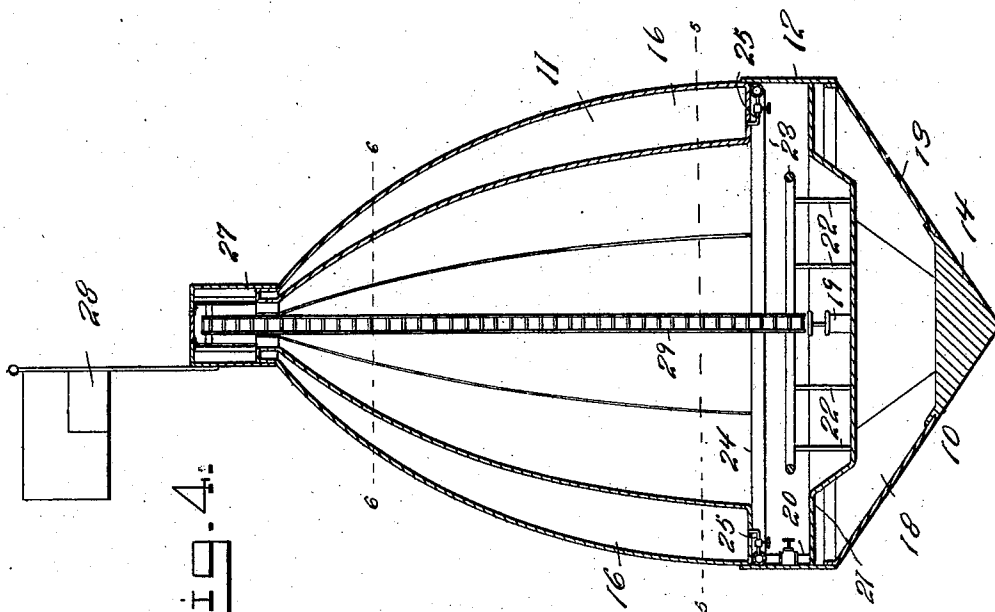


Fig. 4.

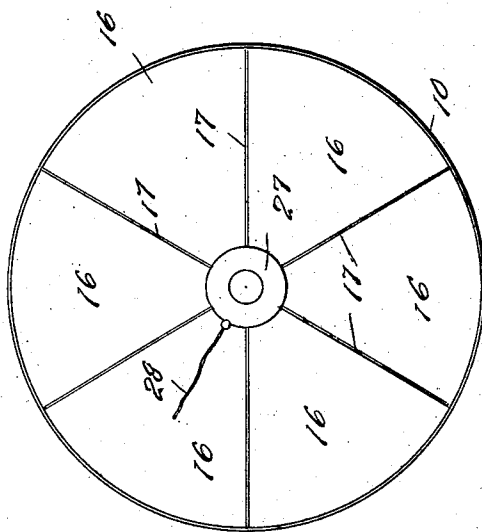


Fig. 5.

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3 SHEETS—SHEET 3.

Fig. 5.

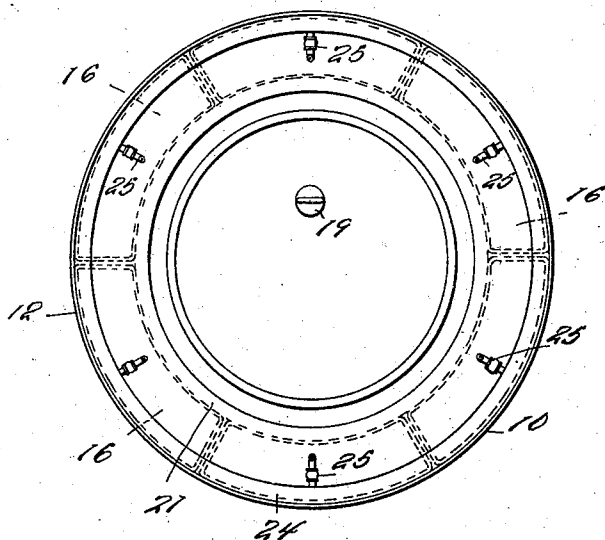
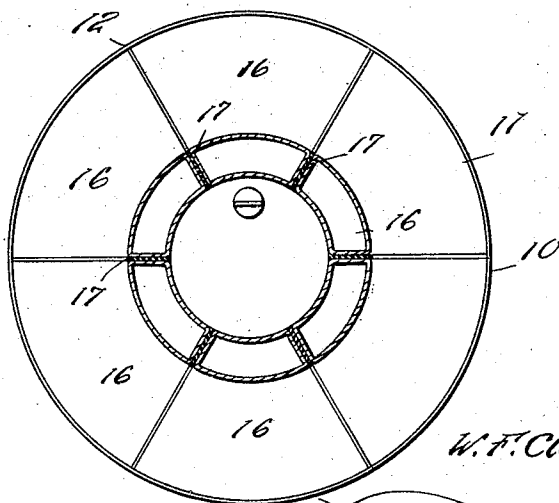


Fig. 6.



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UNITED STATES PATENT OFFICE.

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LIFE-SAVING BUOY.

No. 849,887.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed March 28, 1906. Serial No. 308,606.

To all whom it may concern:

Be it known that I, WILLIAM F. CLARK, a citizen of the United States, residing at Oyster Bay, Long Island, in the county of Nassau, State of New York, have invented certain new and useful Improvements in Life-Saving Buoys; 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 the construction of a life-saving buoy which is adapted to serve as a refuge for the passengers and the crew instead of the present life boats.

The object of the invention consists in the provision of a collapsible sea-top for the buoy, which may be folded down upon the body proper of the buoy when not in use and which may be raised and inflated when the device is to be used.

Further objects consist in the particular construction of the sea-top and in the means for inflating the same.

A still further object consists in the construction of the body portion of the buoy proper and in the combination of the various parts above referred to.

Briefly described, my invention consists in a buoy provided with a body portion of approximately conical shape, the apex of which is formed of solid steel, and a sea-top divided into a plurality of sections, said sections being separably inflated from the air-tank provided in the buoy proper.

The invention will be more clearly understood from a consideration of the detailed description following and from an inspection of the annexed drawings, in which the same parts are referred to by like numerals in all the views.

In the drawings, Figure 1 is an elevation of the improved life-saving buoy, showing the sea-top inflated and the device ready for use. Fig. 2 is a view similar to Fig. 1, but with the sea-top deflated and folded upon the body portion of the buoy. Fig. 3 is a top plan view of Fig. 1. Fig. 4 is a central vertical section through Fig. 1. Fig. 5 is a horizontal section on the line 5 5 of Fig. 4. Fig. 6 is a section on line 6 6 of Fig. 4 and showing the sectional construction of the sea-top.

Referring to the drawings, 10 designates the body portion proper of the buoy, and 11 the sea-top therefor. The body portion 10 consists of an annular ring 12, composed of a

series of steel plates riveted together. To the top of ring 12 is attached the sea-top 11, and to the bottom of said ring is riveted the bottom portion 13 of the body of the buoy. The bottom portion 13 consists likewise of a series of steel plates riveted at their adjacent edges to each other and to the lower edge of ring 12, and the shape of said plates is such that when in their attached position the bottom portion 13 of the buoy is in the form of a truncated cone. The lower edges of the said plates are riveted to a solid steel point 14, thus completing the conical appearance of the body portion of the buoy.

The portion 14 being of solid steel acts as a ballast for the buoy and also tends to prevent injury to the same from rocks should the buoy encounter such when in use.

The connections between the various plates forming the body portion of the buoy and between the body portion and sea-top are of course air-tight.

The sea-top 11 is formed of canvas waterproofed by immersion in a rubber solution or in any other preferred manner and consists of a series of sections 16, connected at their adjacent edges to each other and to the upper edge of the ring 12. Sections 16 are adapted to be separably inflated in a manner hereinafter to be described, and the connections between adjacent sections must therefore be such that escape of air from one section to the other is prevented. This air-tight connection is further increased by the provision of strips 17 of rubber. The sections 16 are likewise of approximately triangular appearance, so that the entire sea-top when inflated presents the appearance of a cone, the base of which is adjacent the ring 12.

The body portion 10 of the buoy is provided in its interior and adjacent the steel point 14 with an air-tank 18, adapted to be filled by a pump 19 of any preferred construction and having a supply-pipe 20, by means of which the air is to be admitted to the different sections 16 of the sea-top, as hereinafter to be described.

The upper portion of the tank 18 is so formed as to provide an annular seat 21, extending around the entire body portion of the buoy, as shown in Fig. 4, and connected with the upper surface of said tank 18 by means of posts 22 is an annular rail 23 within easy distance of the occupants of the seat 21. Connected to the supply-pipe 20 and fastened to the interior of the body portion 10

of the buoy is an annular pipe 24, having a separate connection 25 with each of the sections 16 of the sea-top. The supply-pipe, as well as the annular pipe, is provided with a series of valves for opening and closing the connections of the various pipes. It will thus be seen that each section of the sea-top may be separately inflated by opening the valve connection therebetween and said annular pipe. In case of a leak in one of said sections, therefore, the remaining five sections will be sufficient to fully support the buoy, and there will be no consequent total deflation caused by escape of air from the remaining sections through the leak.

At the top of the sections 16 is provided a tunnel 27, having a hinged top opening inwardly and adapted to be fastened in any preferred manner to the tunnel-top in stormy weather. The tunnel is composed of a waterproofed canvas band held in stretched position by means of oak spreads. Said tunnel is likewise provided with a distress-signal 28 and with a rope ladder 29, leading into the sea-top and the body portion of the buoy.

In use the sea-top will be inflated by opening the connections between the air-tank and the various sections of said sea-top. The buoy is then let down into the water, and the passengers are lowered over the sides of the vessel and into the body of the buoy by means of the rope ladder.

What is claimed is—

1. A life-saving buoy comprising a body portion and a sea-top attached thereto, said sea-top being composed of a plurality of sep-

arate sections, and means for inflating said sections.

2. A life-saving buoy comprising a body portion and a sea-top attached thereto, said sea-top being composed of a plurality of sections, and means for separately inflating each section.

3. A life-saving buoy comprising a body portion and a collapsible sea-top attached thereto, said sea-top being composed of a plurality of separate sections, and means for separately inflating each section.

4. A life-saving buoy comprising a body portion of conical shape, the apex of said conical portion being composed of solid steel, a sea-top attached to said body portion and composed of a plurality of separate sections, and means for inflating said sections.

5. A life-saving buoy comprising in combination a conical body portion, means for ballasting said body portion, a sectional sea-top, and means for inflating said sections of said sea-top.

6. A life-saving buoy comprising in combination a body portion, and a sea-top; an air-tank in said body portion, and a supply-pipe connected with said air-tank; said sea-top being composed of said separate sections, and connections between said air-pipe and sections for separately inflating each section.

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

WILLIAM F. CLARK.

Witnesses:

R. W. ROYCE,
J. H. BALDWIN.