T. MIYAKE.

LIFE SAVING DEVICE.

APPLICATION FILED MAY 6, 1912.

1,067,364. Patented July 15, 1913.

Fig. 1.

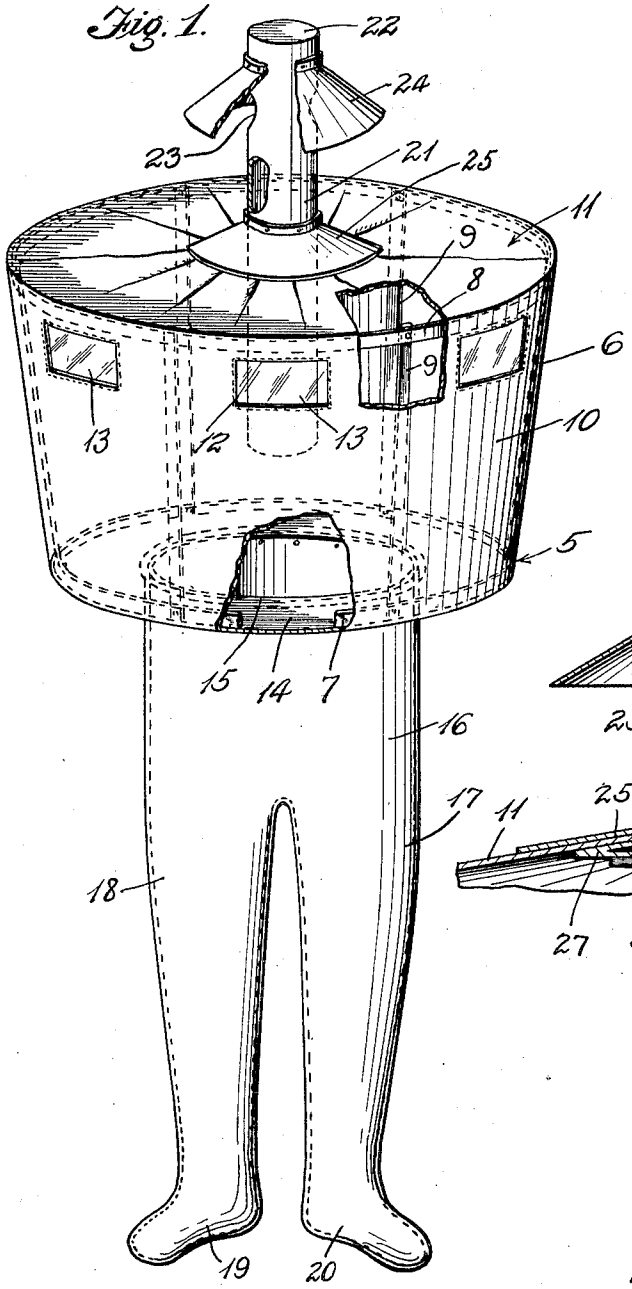
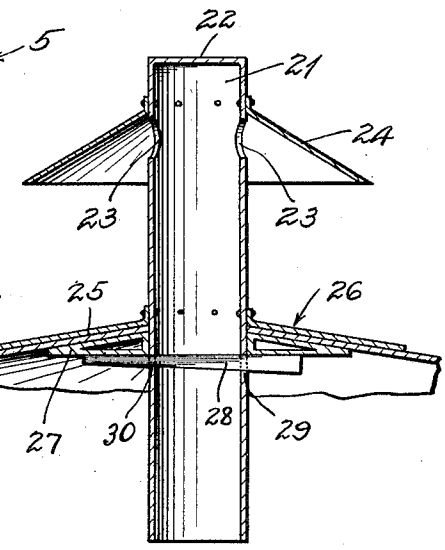


Fig. 2.



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UNITED STATES PATENT OFFICE.

TOMOKICHI MIYAKE, OF LOS ANGELES, CALIFORNIA.

LIFE-SAVING DEVICE.

1,067,364. Specification of Letters Patent. **Patented July 15, 1913.**

Application filed May 6, 1912. Serial No. 695,410.

To all whom it may concern:

Be it known that I, TOMOKICHI MIYAKE, a citizen of Japan, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Life-Saving Device, of which the following is a specification.

My invention relates to improvements in life saving devices, similar to the construction illustrated in my allowed application entitled Life saving devices, S. N. 677,256, and an object thereof is to provide a fabric covered structure which will entirely inclose and support a person while in the water, and at the same time furnish to the person inclosed, fresh air, and effectually exclude water from entering the structure.

Another object of my invention is to provide a fabric covered structure having legs attached thereto, thus enabling a person to enter the device and to freely walk on the deck of a steamer or other structure without impediment.

I accomplish these objects by means of the device described herein and illustrated in the accompanying drawing, in which,

Figure 1 is a perspective view of my improved structure with parts being broken away to more fully disclose my invention. Fig. 2 is a central vertical section through my air inlet means showing its connection to the body structure of my device.

Referring more particularly to the drawing, 5 designates the complete structure which consists of a member 6, preferably formed of annular metallic rings 7 and 8 and connected together by vertically disposed iron bars 9. Ring 7 is of less diameter than ring 8 for the purpose of decreasing the size of the device and to make it less cumbersome when worn by a person. The iron frame thus described is preferably covered on the top side and bottom with a waterproof fabric 10, secured thereto in any suitable manner.

The edges of the fabric cover 11 of the member 6 extend inwardly and meet at the center thereof as clearly illustrated in Fig. 1 of the drawing. The sides of the fabric covering of member 6 are provided with openings 12 which are closed with celluloid or other translucent material 13, thus enabling a person confined in the said structure to make observations as to where he is being carried while in the water.

The bottom 14 of structure 6 is provided with a centrally disposed opening 15 to the edge of which is secured a downwardly depending structure 16 formed of waterproof material. This structure is in trouser form having legs 17, 18 and feet 19, 20 into which the lower portion of a person's body may be comfortably disposed while in the structure, the body from the waist up being in the member 6.

Centrally disposed in the top of member 6 is an air inlet means which preferably consists of a hollow metallic member 21 closed at its upper end as at 22 and provided near this end with air inlet apertures 23. Bolted or otherwise secured to tube 21 and above the air inlet apertures 23 is a conical shaped deflector 24. This deflector is for the purpose of preventing the water from passing through the apertures 23 into the interior of the device.

Disposed directly underneath deflector 24 is an annular flange 25 preferably in the form of a frustum of a cone, this being rigidly secured to the tubes by bolts or other securing means and forming the top member of a fabric clamp 26. The lower member 27 of the fabric clamp preferably consists of an annular flange, the upper surface of which is adapted to rest against the under surface of flange 25 when in operative position. Interposed between member 25 and member 27 is a fabric covering 11, of structure 6, the clamp 27 securely holding the same in rigid engagement therewith by means of a wedge 28 which is forced through apertures 29, 30 formed on the metallic member 21.

The air inlet structure just described may be inserted in the top of the structure 6 as clearly illustrated in Fig. 1 when the sea is rough, enabling the person contained therein to be protected from the elements, and may be withdrawn in calm weather and taken inside of member 6.

It will be seen from the foregoing that my device when not in use will take up very little room, as the structure 16 may be folded upwardly into the structure 6 and the same stowed away beneath a sleeping berth in a stateroom. By providing the structure 16 which consists of two leg members 17 and 18, it is possible for a person to put the device on and walk around the decks of a steamer or other structure without any impediment to his movements, thus if the steamer were on fire or in a sinking condi-

tion a person could don the device in the privacy of his stateroom and immediately walk upon the decks and cast himself into the sea with little or no trouble, than if he were wearing an ordinary cork life belt. It will also be noted that as the device is covered with a fabric which is impervious to moisture that a person will not be brought in contact with the water and will remain in a dry condition as long as he remains therein. It will also be noted that by providing an air inlet device the lower ends of which may be controlled by the person within the device that all danger of wave action forcing water into the structure will be avoided and the person will be supplied at all times with pure air. If found desirable the upper structure or member 6 may be furnished with sufficient food and water to provide for the person within the structure until he is rescued. It will also be noted that as the structure is tightly inclosed that it will be bouyant enough to support the person within the structure, the legs at all times being freely movable.

What I claim is:

1. A life saving device, comprising a substantially cylindrical structure consisting of a metallic frame, having a moisture proof covering secured thereto, said structure being provided in the top and bottom thereof with openings, an air inlet tube mounted in one of said openings, clamping members mounted on said tube, one of said members being rigidly secured thereto and the other of said members being movably mounted thereon, means for rigidly maintaining the movable member in a fixed position when the two members are in operative relation to each other and a bifurcated structure impervious to moisture secured to the bottom of said structure around the edges of the opening therein.

2. A life saving device, comprising a fabric covered structure impervious to moisture, said structure being provided in the bottom thereof with an opening, the fabric forming the top wall of said structure being drawn together to form a centrally disposed opening, an air inlet tube mounted in the opening formed in the top wall of said structure, the flexibility of the top wall permitting a vertical movement of said air inlet means to force air into and out of said fabric covered structure, means secured to said air inlet means, whereby the same may be clamped in water tight engagement with the top wall, and a bifurcated member secured to said structure at the lower opening around the edges thereof.

3. A life saving device, comprising a cylindrical hollow structure having openings in the top and bottom thereof, said covering for said structure being of impervious material, said structure having observation windows therein, an air inlet mechanism mounted in the aperture formed in the upper end of the structure, said air inlet means comprising a hollow metallic tube open at its lower end and closed at its upper end, and also having a plurality of apertures therein adjacent the top thereof, a sub-conical shaped deflector rigidly secured to said hollow tube at the upper end thereof and above the air inlet opening therein, a clamping member secured to the tube below the air inlet opening, a second clamping member movably mounted on said tube and coacting with said first named clamp member to clamp the fabric of the hollow structure therebetween, a wedge for maintaining the second member of the clamp in intimate relation to the first named member of the clamp, and a bifurcated structure formed of impervious material secured to said hollow structure at the lower part thereof, said structure communicating with said hollow structure.

In witness that I claim the foregoing I have hereunto subscribed my name this 29th day of April, 1912.

TOMOKICHI MIYAKE.

Witnesses:
E. STEDLMAN,
EARLE R. POLLARD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."