J. B. ADAMS.

LIFE SAVING APPARATUS.

APPLICATION FILED AUG. 4, 1915.

1,180,100. Patented Apr. 18, 1916.

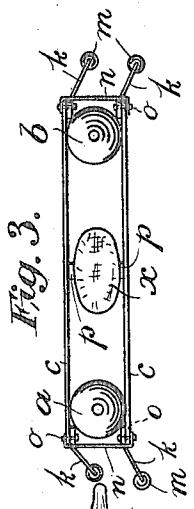


Fig. 3.

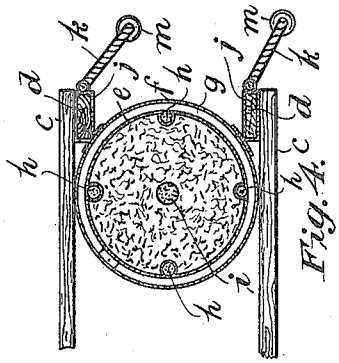


Fig. 4.

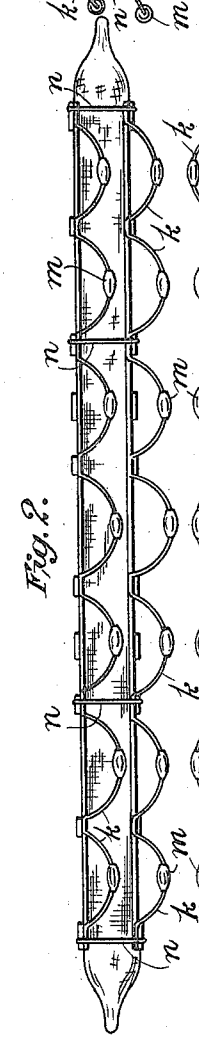


Fig. 2.

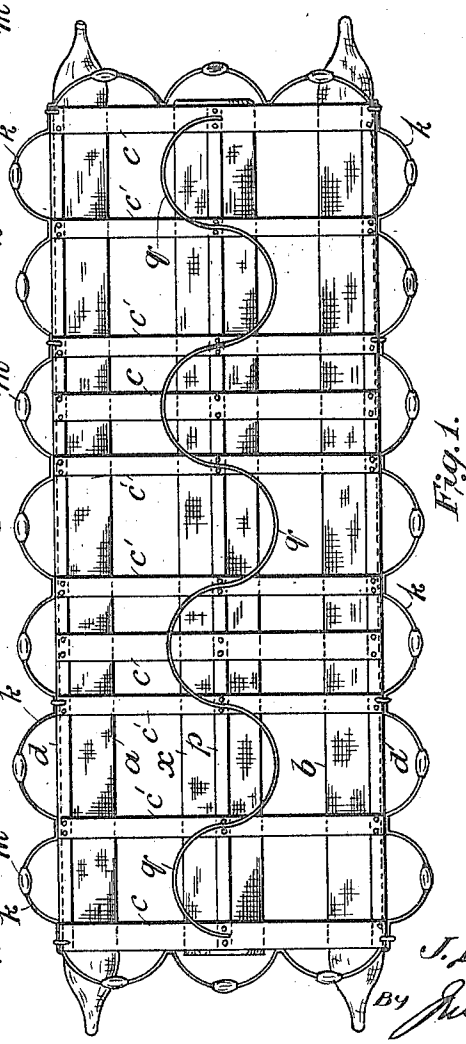


Fig. 1.

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LIFE-SAVING APPARATUS.

1,180,100. Specification of Letters Patent. Patented Apr. 18, 1916.

Application filed August 4, 1915. Serial No. 43,678.

To all whom it may concern:

Be it known that I, JOHN BALDWIN ADAMS, a subject of the King of Great Britain, residing at Christchurch, New Zealand, have invented certain new and useful Improvements in Life-Saving Apparatus, of which the following is a specification.

This invention relates to life saving apparatus and refers more particularly to improvements in the apparatus employing torpedo shaped floats filled with kapok.

The object of the present invention is so to arrange and connect such elongated buoys or floats as to form a raft or the like, which can be readily thrown into the water and on reaching same will always assume a correct position for the salvage of a very large number of persons.

According to the present invention a number of elongated buoys of the kind before mentioned are arranged in suitably spaced relation and connected by an openwork framing so that the complete structure so formed will always float in operative position and there will be no tendency to roll.

In the accompanying drawings:—Figure 1 is a plan of one form of life saving apparatus according to the invention. Fig. 2 is a side elevation. Fig. 3 is an end view of the apparatus. Fig. 4 is a cross section of a float or buoy on a larger scale.

In carrying the invention into effect according to the form shown, two elongated torpedo buoys *a* and *b* are spaced apart and held by cross battens *c c* which are fixed to longitudinals *d d* suitably attached to the buoys. The buoys are formed of double sacks *e f* stretched over cane rings *g* with longitudinally running cane rods *h* near the periphery of the inner sack. In addition to the peripheral rods *h* a central rod *i* is provided over which the canvas is suitably bound at the ends of the torpedo bodies. Both sacks are of strong waterproofed canvas and the inner one *e* is filled with kapok. The longitudinals *d d* are bound to the torpedo bodies by canvas bindings *j* as can be seen most clearly in Fig. 4. The canvas bindings *j* surround the longitudinals *d*, being suitably cemented thereto and are also bound by cement or other suitable means to the outer sack *f* of the torpedo body. Midway between the two torpedo bodies *a* and *b* a third body *x*, preferably of elliptical shape is provided. This body is also filled with kapok and has a double covering in a manner similar to the torpedo bodies *a* and *b* just described. The longitudinals *d* are also bound by cross pieces *c'* which are conveniently located at the points where the life lines *k* are connected to the longitudinals. I usually prefer to adopt two tiers of life lines as seen in Figs. 2 and 3, each loop being provided with a floating handle *m* for enabling it to be easily seized. The top and bottom wood structure, composed of the longitudinals *d* bound by the transverse bars *c* and *c'*, are clamped together to hold the torpedo bodies tightly in place by clamps *n* which consist, as can be seen in Fig. 3, of double bent bars fixed by bolts *o* to the longitudinals and transverse bars. Central longitudinals *p p* are provided also and life lines *q q* are fitted to these top and bottom. Life lines are also provided at the ends.

The usual length of the torpedo bodies is 12 feet and the width of the raft is about 4 feet. The torpedo bodies themselves are about 8 inches diameter outside the outer cover. Such a raft has an actual carrying power of about 900 lbs., so that a very large number of persons can be saved. If the partially immersed persons pass both the lower and upper life lines around them they can be held in an upright position even when exhausted.

The shape of the raft is such that a number can be very readily stored in vertical position without occupying a large amount of deck space. By providing separate elongated buoys as described a very light and easily manipulated apparatus is obtained which may be thrown from a sinking ship and will always float in operative position. At the same time very considerable carrying power is obtained and due to the large contour or external edge of the raft a very considerable number of persons may obtain access to the life lines whereby the carrying capacity of the raft may be fully utilized.

I claim:—

1. A life raft comprising a plurality of torpedo shaped floats, each of said floats comprising a plurality of waterproof sacks, a kapok filling in the inner of said sacks, a central bar extending through said sack, a plurality of longitudinal bars supporting the inner of said sacks, a plurality of longitudinal bars parallel with said floats, transverse bars connecting said longitudinal bars, a

central float spaced between said torpedo shaped floats, means for supporting said central float, and means for supporting persons upon the edges of said raft.

2. A life raft comprising in combination a plurality of elongated torpedo shaped floats, sack coverings on said floats, canvas bindings fixed longitudinally on said coverings, longitudinal bars embraced by said canvas bindings, transverse bars binding said longitudinal bars and retaining said floats in spaced relation and clamps binding the top and bottom frames formed by said longitudinal and transverse bars whereby to clamp said elongated floats.

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

JOHN BALDWIN ADAMS.

Witnesses:
CYRIL CARLYN CUSHER,
SIDNEY JAMES TRELEAVEN.

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