

A. B. SALIGER.
RESILIENT PONTON.
APPLICATION FILED JULY 13, 1920.

1,384,094.

Patented July 12, 1921.

Fig. 1.

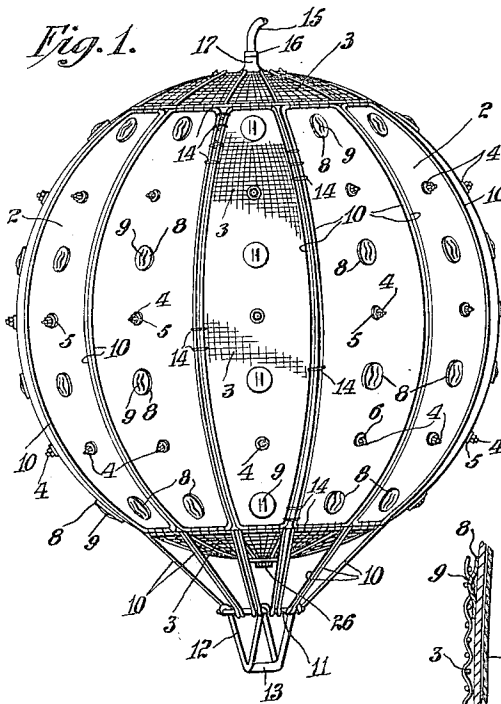


Fig. 2.

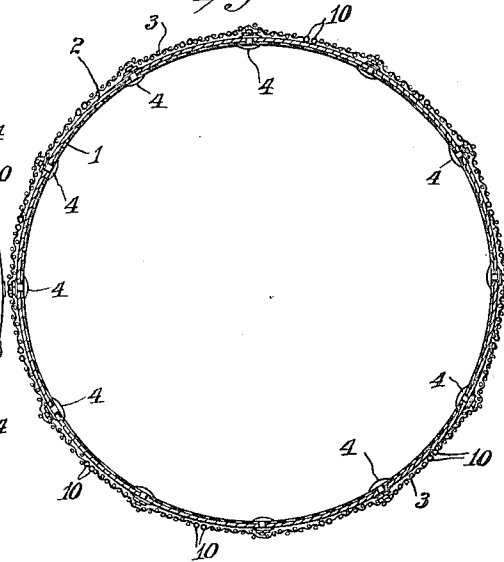


Fig. 3.

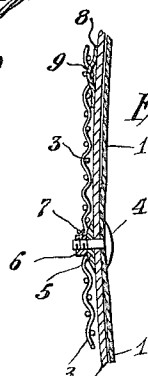


Fig. 5.

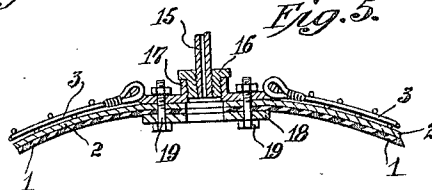


Fig. 4.

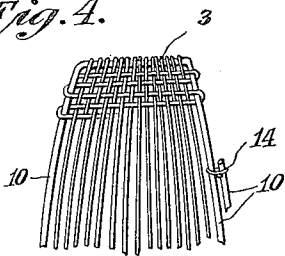
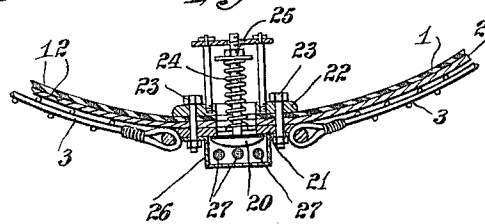


Fig. 6.



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UNITED STATES PATENT OFFICE.

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RESILIENT PONTOON.

1,384,094.

Specification of Letters Patent.

Patented July 12, 1921.

Application filed July 13, 1920. Serial No. 395,976.

To all whom it may concern:

Be it known that I, ALOIS B. SALIGER, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Resilient Pontoons, of which the following is a specification.

The object of my invention is to provide a means for lifting heavy objects in water, such as sunken ships, and I have particularly in mind such a means which is practical and operative in storm or rough water conditions.

Briefly stated, my device consists of a resilient and collapsible pontoon built up of a plurality of concentric casings preferably substantially spherical in shape. The inner one is made of air tight material such as rubber, the intermediate one of stout, smooth material such as canvas or duck, and the outer one fabricated out of substantial rope or cable closely netted so as to give uniform support to the intermediate casing. In order to keep the three casings in relative position while the pontoon is deflated or folded up, or while handling in a deflated condition, I fasten the inner and intermediate casings together at a plurality of substantially equally spaced points, and likewise fasten together the outer and intermediate casings. This construction prevents the enormous strain to which the outer casing is at times subjected, to be communicated to the inner one and yet, as stated, retains the three casings always in relative position. The construction of outer casing is such that it affords means for attaching it to the object to be lifted in a manner that distributes the strain equally over the surface of the pontoon, and the pontoon is further provided with a suitable pressure regulating valve and suitable means for inflating and deflating it.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation.

Fig. 2 is a transverse section.

Fig. 3 is a fragmental cross section, showing the detail of construction.

Fig. 4 is a detail view showing the construction of the outer casing.

Fig. 5 is a cross section of inflation and deflation device and

Fig. 6 is a cross section of the pressure regulating valve.

In the practice of my invention I provide a casing 1. made of rubber or other suitable air tight material, a casing 2. made of strong, smooth and substantially non-elastic material such as cotton duck, and a casing 3, preferably fabricated as shown out of rope or cable. These three casings are of substantially equal size and concentrically assembled. 4—4 are flanged bolts, 5—5 are washers and 6—6 the nuts. Casings 1. and 2. are clamped together between the washers and bolt heads by means of said nuts 6. 7. is a suitable set-screw to lock the nuts. 8—8 are patches sewed on or otherwise secured to the outside of the casing 2. 9—9 are straps or handles formed by slitting the patch 8. as shown and which serve as suitable points for attaching casing 2. to casing 3.

Casing 3. I preferably fabricate in the form of segmental sections and then lace these together, completing the spherical covering with two circular pole sections. 10—10 are the main stay ropes which terminate and are secured to a steel ring 11. To this steel ring is secured a suitable cross bar 13. by means of the members 12—12. The member 13. serves as a suitable grip to which the weight to be lifted may be attached.

15. is a suitable air tube for inflating the pontoon.

16. is a bushing which is threaded into the flange 17 so that by removing it the air in the pontoon may escape rapidly. Casings 1. and 2. are clamped between the flanges 17. and 18. by means of the bolts 19—19. Likewise casings 1. and 2. are clamped between the flanges 21. and 22. by means of the bolts 23. 20. is a valve head seated on the flange 21. as shown. 24. is a spring the tension of which may be adjusted by the nut 25. By means of this arrangement the amount of air pressure to be retained within the pontoon may be determined at will by simply increasing or decreasing the tension of the spring 24. 26. is a suitable guard to protect

the valve, and 27—27 are gauze covered openings in said guard to permit of the passage of air but to exclude particles of solid matter from entering and interfering with the proper functioning of the valve.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is—

1. A resilient pontoon, comprising a plurality of independent concentrically assembled casings, each of which casings being attached to the one adjacent to it at a multiplicity of approximately evenly distributed points, a means for inflating and a means for quickly deflating said pontoons, and a pressure regulating device adapted to automatically regulate the air pressure within the pontoon substantially as shown and described.
2. A resilient pontoon, comprising a suitable air pressure regulating device, a suitable means for inflating and deflating it, and constructed of a plurality of independent

concentric casings in which said casings are secured to each other at a multiplicity of points other than as may be required for an airtight inlet and outlet device or air pressure regulator device substantially as shown and described.

3. A resilient pontoon, comprising a suitable air pressure regulating device, a suitable means for inflating and deflating it, and constructed of a plurality of independent concentrically assembled casings attached to each other at a multiplicity of points, and a suitable attaching means connected with the outermost of said casings substantially as shown and described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this twelfth day of July, 1920.

ALOIS B. SALIGER.

Witnesses:

R. KEARNS,
SETH MUNRO.