

(No Model.)

2 Sheets—Sheet 1.

O. ROSENDAHL.
LIFE SAVING APPARATUS.

No. 412,417.

Patented Oct. 8, 1889.

Fig. 1

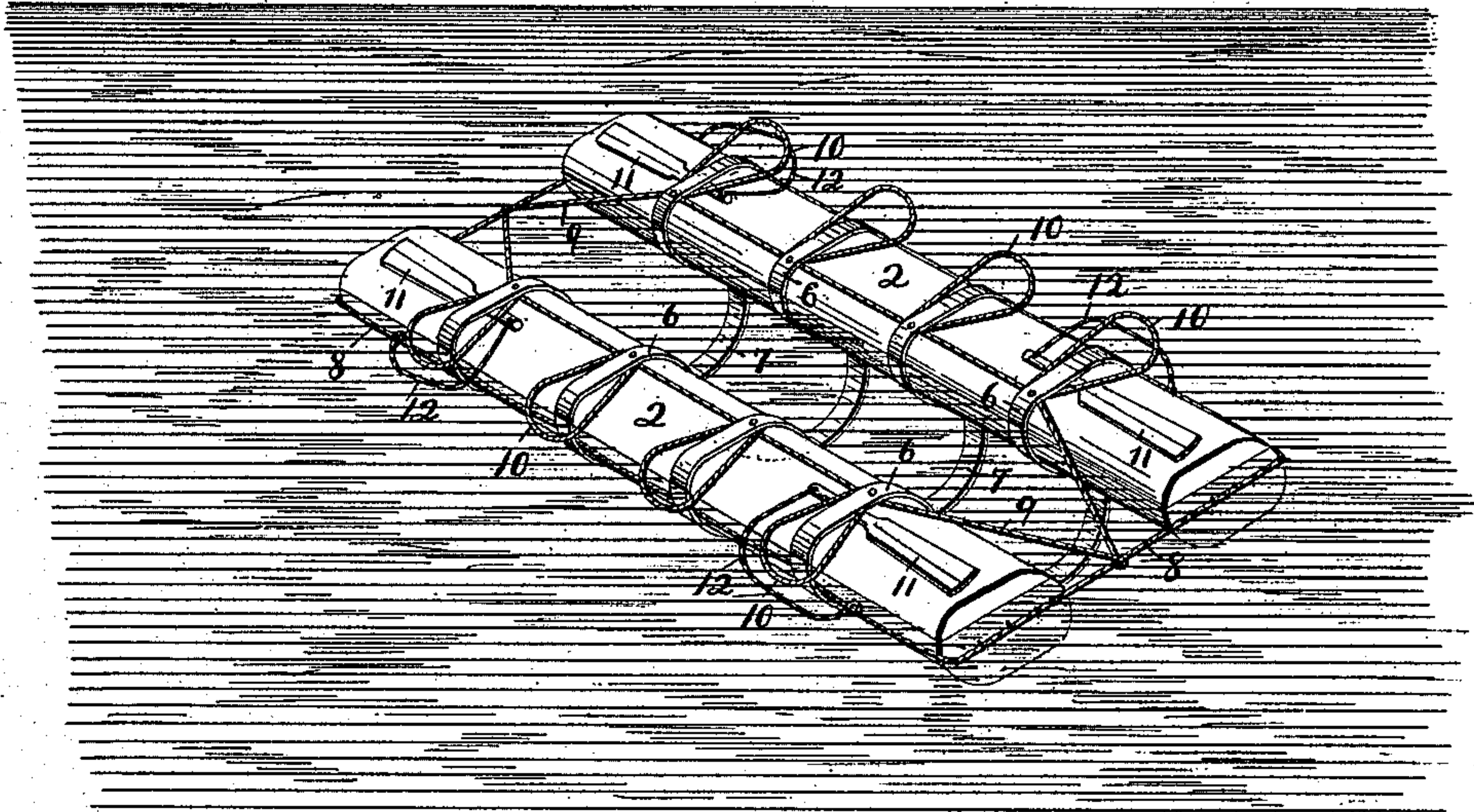
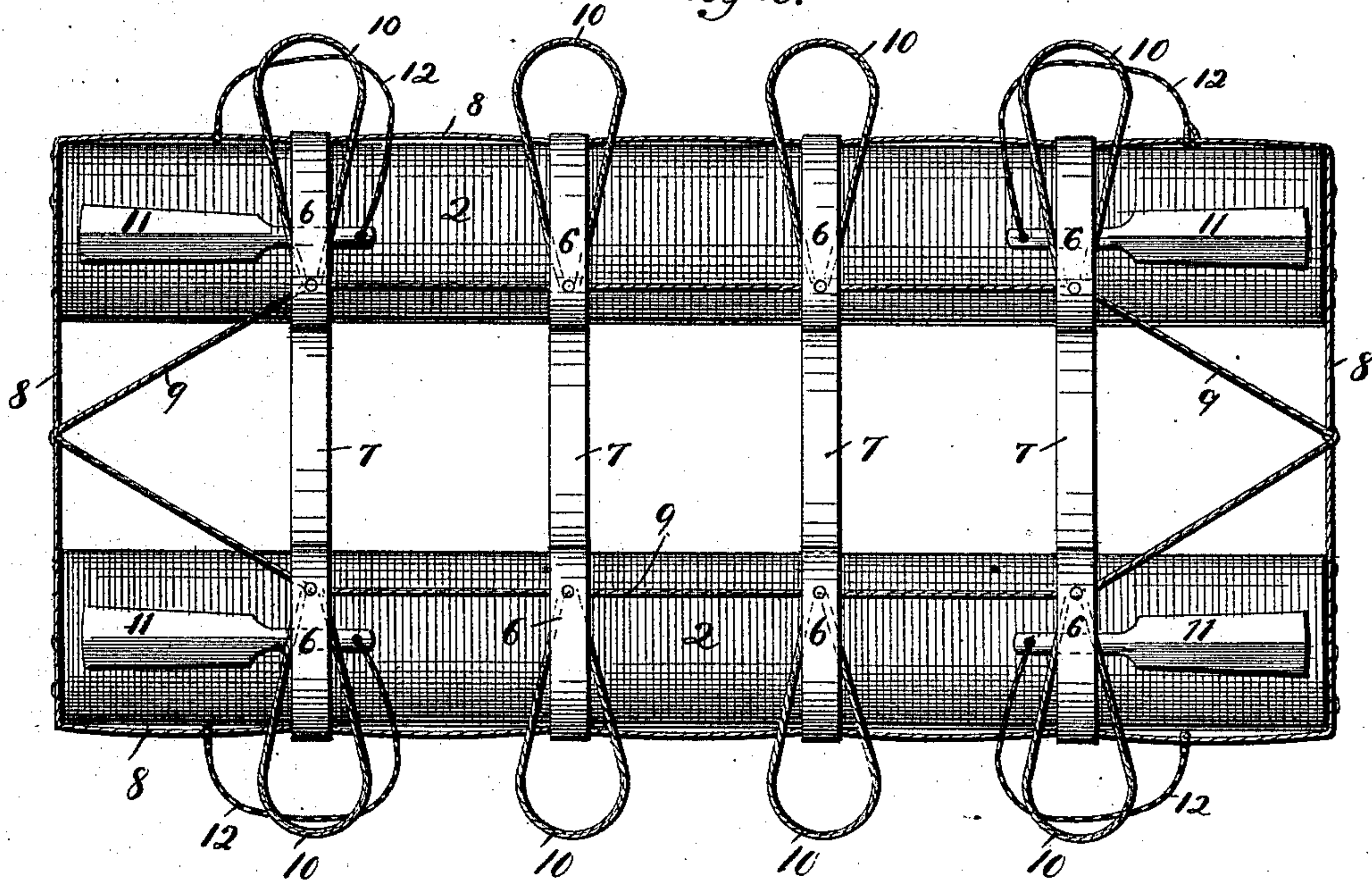


Fig. 2.



Witnesses.

J. Jensen.
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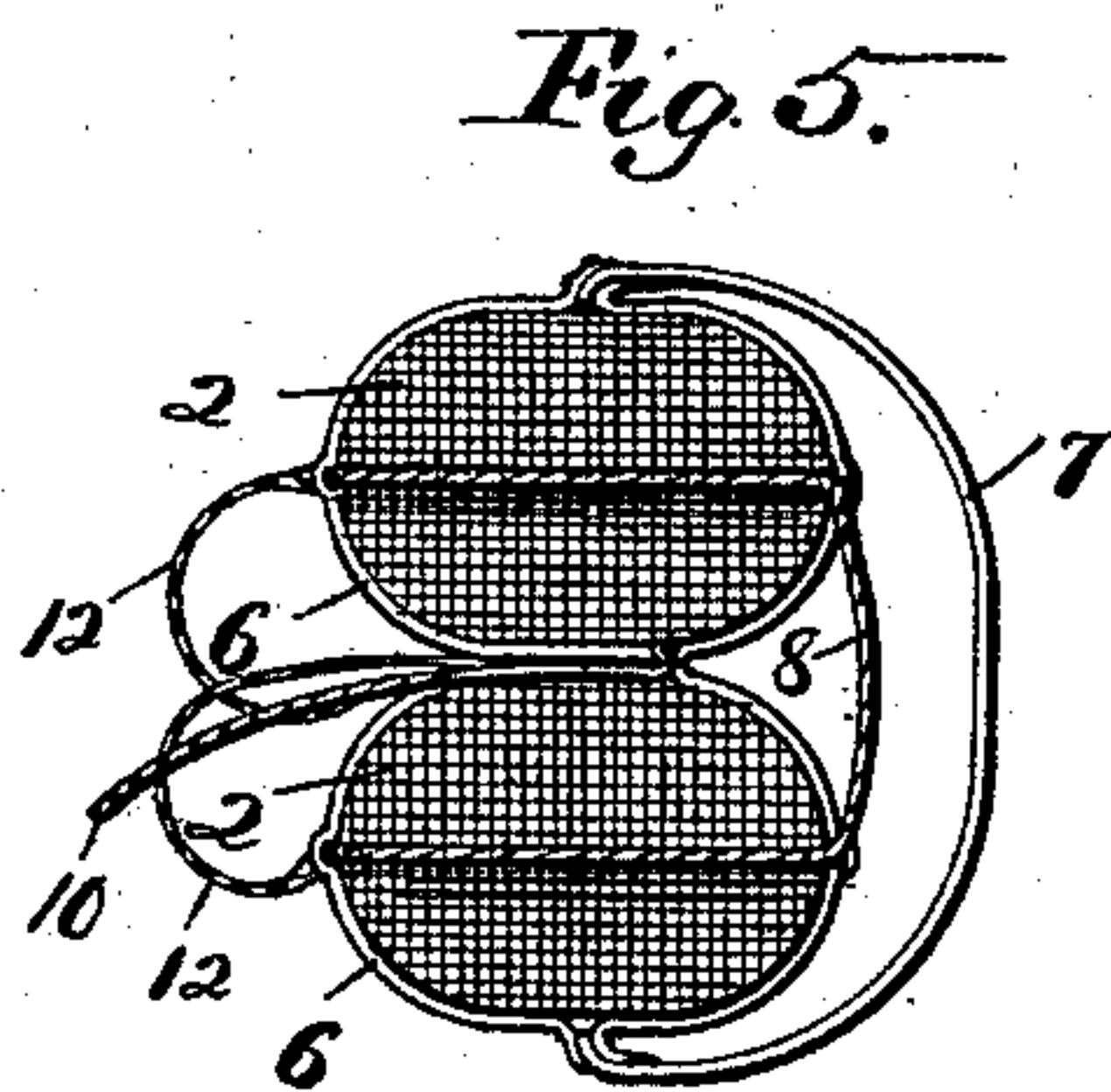
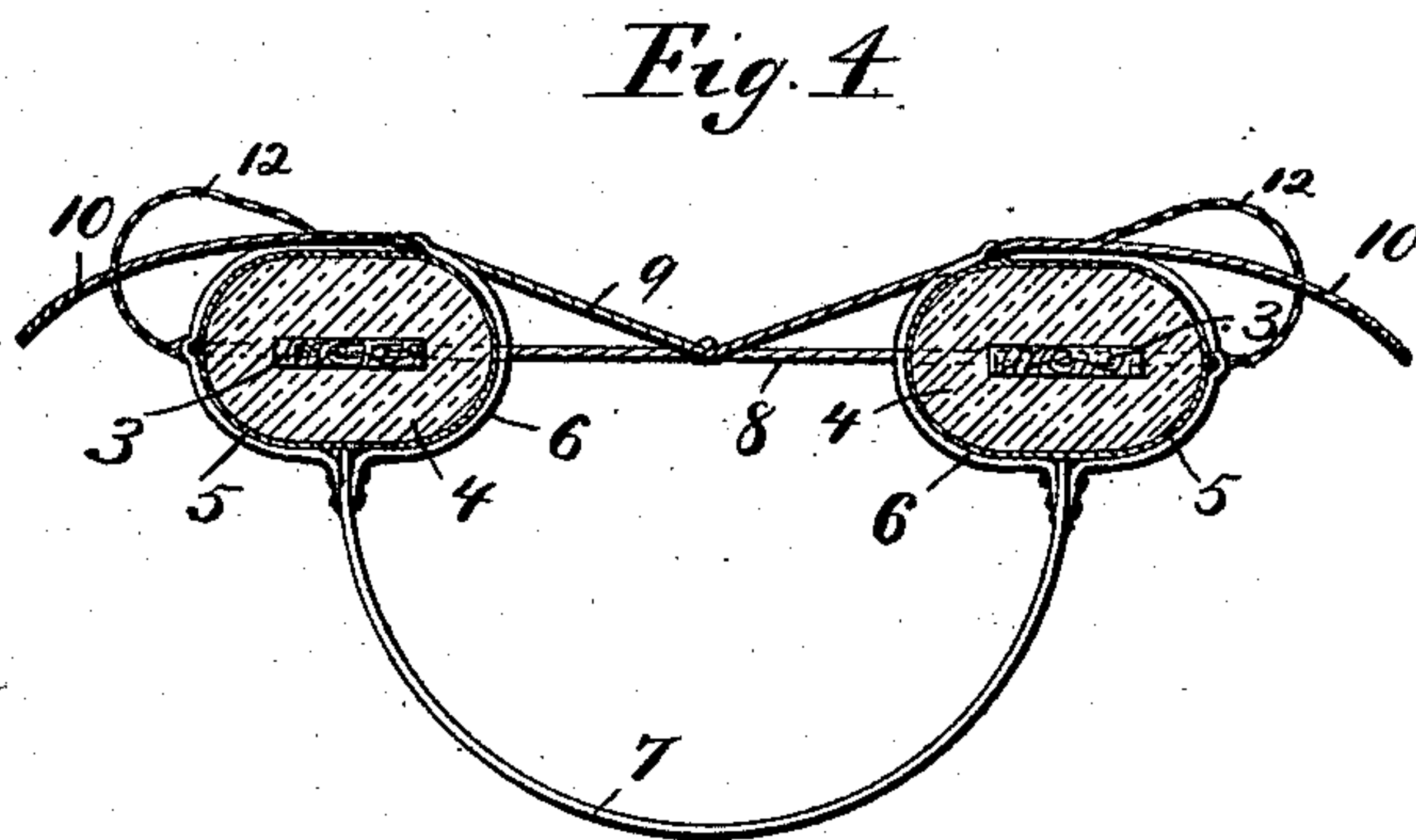
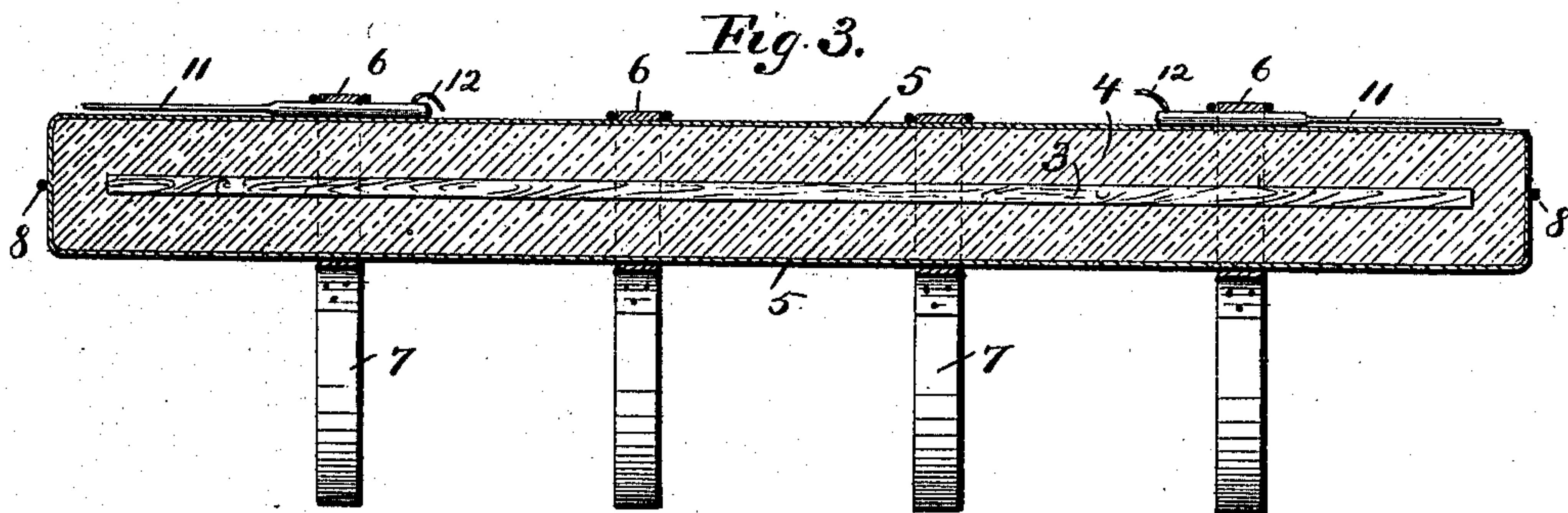
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UNITED STATES PATENT OFFICE.

OLE ROSENDAHL, OF MINNEAPOLIS, MINNESOTA.

LIFE-SAVING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 412,417, dated October 8, 1889.

Application filed April 27, 1889. Serial No. 308,863. (No model.)

To all whom it may concern:

Be it known that I, OLE ROSENDAHL, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain
5 new and useful Improvements in Life-Saving Apparatus, of which the following is a specification.

My invention relates to that class of device
10 designed for protecting persons from drowning in deep water, particularly in case of shipwreck, the inherent buoyancy of the device serving to support persons clinging or secured to it; and it consists, generally, in the construction and combination hereinafter
15 described, and particularly pointed out in the claims.

It is my object in this invention to provide a craft which is capable of supporting a number of persons in the water, of protecting
20 them to a considerable extent from the force of the waves in a rough sea, of being attached to a line and towed from a wreck, or of being propelled by the persons supported by it in waters which would swamp any boat.

It consists, essentially, of two buoyant
25 bodies or hulls of substantially equal and regular size arranged parallel to each other and flexibly joined together, with intervening space to admit the body of a person, and having
30 suitable attachments to enable one to secure a hold on the apparatus and for securing persons to it.

In the drawings forming part of this specification, Figure 1 is a perspective view of
35 my improved apparatus; Fig. 2, a plan view of the same; Fig. 3, a longitudinal vertical section through one of the hulls. Fig. 4 is an end elevation of the same, and Fig. 5 is a cross-section of the apparatus as folded
40 up for transportation or storage on ship-board.

In the drawings, 2 represents the hull or body, which is preferably several feet in length, of substantially equal size from end
45 to end, and elliptical in cross-section. It is composed, preferably, of a suitable board 3, forming its center or backbone, a surrounding mast 4 of some material impervious to water and of very light specific gravity—such as cork—firmly compressed and
50 packed about the backbone, and a suitable

water-tight envelope or cover 5, preferably water-proof canvas or duck. This hull is banded, preferably, with pieces of cotton-web belting 6, preferably secured to the hull at
55 one point on the outer side of the hull. The two hulls are joined together, preferably, by loops of cotton web 7, either formed integral with the band 6 or secured to them centrally underneath the hulls. These loops are suffi-
60 ciently long to serve as a support for a person sitting astride thereof between the hulls. The hulls are also connected by means of a rope 8, which is secured along the outer side of each
65 hull to the bands 6 and across the ends of the hulls, the length of rope between the hulls being adjusted to the desired space between them. Preferably secured to said rope at either
70 end of the apparatus and midway between the hulls is the hand-rope 9, which passes under and is secured to each of the bands 6 of both hulls near the inner side of the hulls, and
75 thus provides convenient handles to be grasped by persons next them. I also prefer to provide each of the hulls with loops 10,
80 secured to the bands 6 near the inner side of the hull, and adapted to be grasped by persons alongside or to be placed underneath the arms as a support for persons either outside or inside the apparatus. I prefer, also,
85 to provide paddles 11, which are secured by suitable cords 12 to the apparatus, and which may be slipped under the bands 6 when not
90 in use.

The apparatus, when removed from the
85 water, may be folded up, as shown in Fig. 5, for convenience in handling and storing. When thrown upon the water, it naturally unfolds right side up ready for use. It may be made of any desired size to support from
90 two to a dozen or more persons, and may be utilized to transport goods or other articles either placed upon it or attached to it. Rope webbing or other suitable material may be used for any of the parts 6 7 8 9 10, as may
95 be preferred.

The method of using my improved life-saving apparatus is as follows: In case of shipwreck, or for the rescue of persons over-
board, it is thrown into the water, wherefrom
100 its construction it falls extended or open and may be readily grasped by the handles formed

by the loose portions of the ropes and webbing attached to the hulls, as hereinbefore described. One or more persons, according to the size of the apparatus, can be supported upon the loops 7 between the hulls, and as many more upon either side. The loops 10 may be thrown over the shoulders and thrown over the arms to support those clinging to the apparatus and prevent their losing their hold. A line may be attached at the junction of the rope 9 with the rope 8, and the apparatus thus towed to a place of safety. As the rope 9 is secured to each of the bands 6, the strain is distributed to all of these points instead of coming upon the fastenings at the end of the hulls. Paddles 11 may be slipped from under the bands 6 and used by the persons between the hulls to propel the apparatus. In the rough water the persons between the hulls are protected by them from the force of the waves.

This apparatus is especially valuable for use at life-saving stations in place of boats and other apparatus in the roughest kind of surf or breakers by being attached to a line thrown over a wreck and drawn to and fro to transport the passengers from the wreck to the shore.

While I have shown and described an apparatus having two hulls only, three or more hulls may be arranged together with similar connections and attachments where desired.

I claim as my invention—

1. In a device of the class described, the combination of a pair of buoyant hulls formed with a central backbone or rigid core, inclosed by a filling of material impervious to water and of light specific gravity, and having an outer water-proof covering, a series of centrally-depending loops connecting said hulls together, other flexible connections at the ends of said hulls shorter than said loop connections, but equal to each other in length, series of circumferential bands surrounding each of said hulls and secured thereto, hand-ropes arranged horizontally on the outer and inner sides of said hulls and longitudinally thereof, and series of independent loops se-

cured to the circumferential bands of said hulls and adapted to be thrown outward from said hulls to support persons on the outside of said hulls, or when turned inward to support persons between said hulls, substantially as described.

2. The combination, with a pair of buoyant hulls of substantially uniform size and arranged parallel with each other, of the rope 8, surrounding both said hulls horizontally and connecting their ends together and forming convenient hand-loops on the outer side of said hulls, the inner hand-rope 9, arranged on the inner side of the hulls longitudinally thereof and secured to the rope 8 at either end midway between the ends of the hulls, the series of circumferential bands 6, surrounding said hulls, the depending loops 7, secured at either end to the bands 6 on the underside of said hulls at points substantially in the medial line of said hulls, and the loops 10, secured, respectively, to the bands 6 and adapted to be thrown either outward or inward of said hulls and to serve as a support for persons clinging thereto, substantially as and for the purposes set forth.

3. The combination, with a pair of buoyant hulls arranged parallel with each other and having flexible end connections with each other, hand-ropes secured longitudinally thereof on their inner and outer sides, circumferential bands surrounding each of said hulls and secured thereto, depending loops secured at either end to said bands on the under side of said hulls and substantially along their medial lines, independent hand-loops secured upon the upper side of said hulls to said circumferential bands, and suitable hand-paddles attached to said hulls and adapted to be slipped under said circumferential bands when not in use, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 17th day of April, 1889.

OLE ROSENDAHL.

In presence of—

T. D. MERWIN,
A. M. GASKILL.