

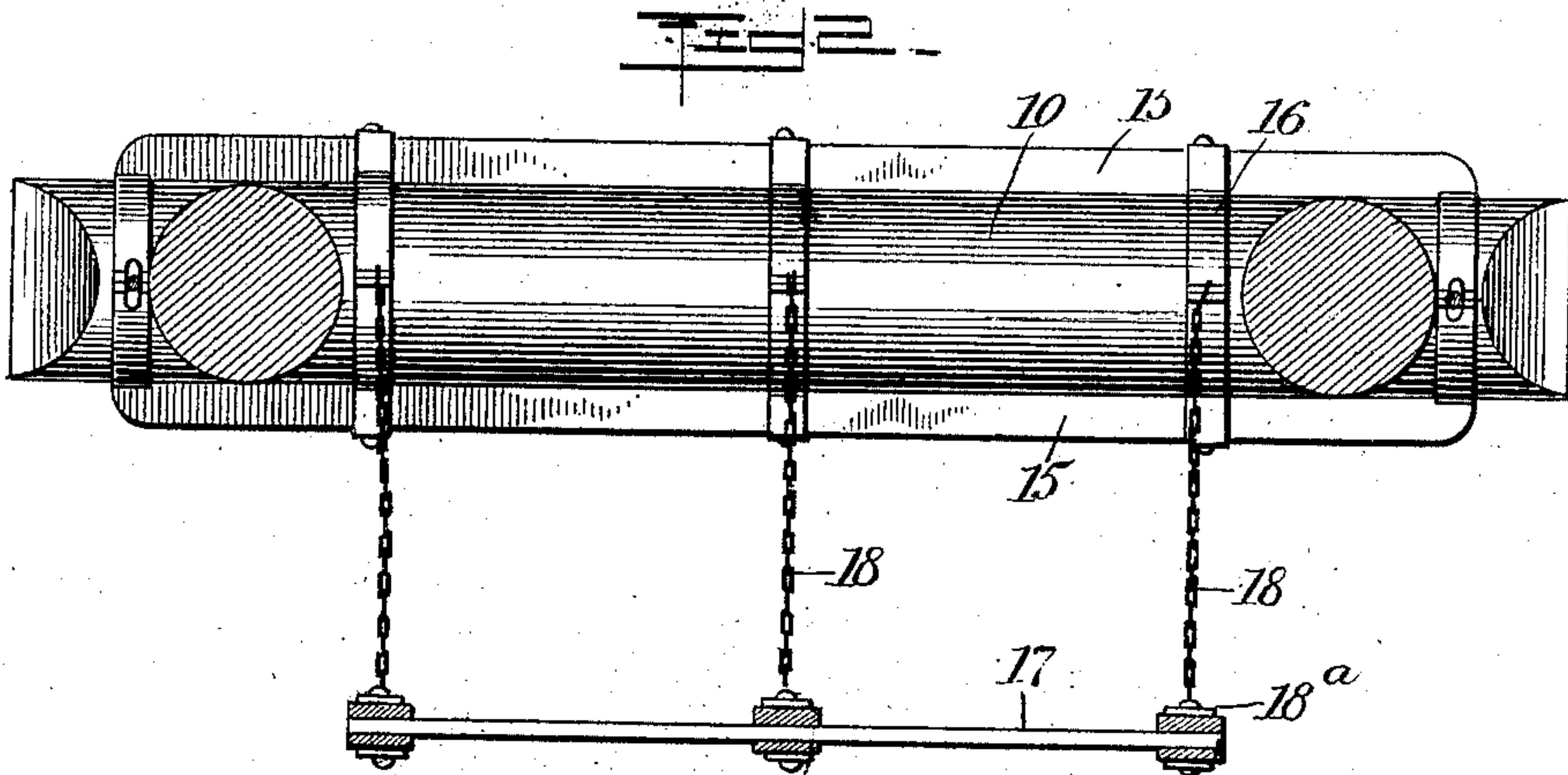
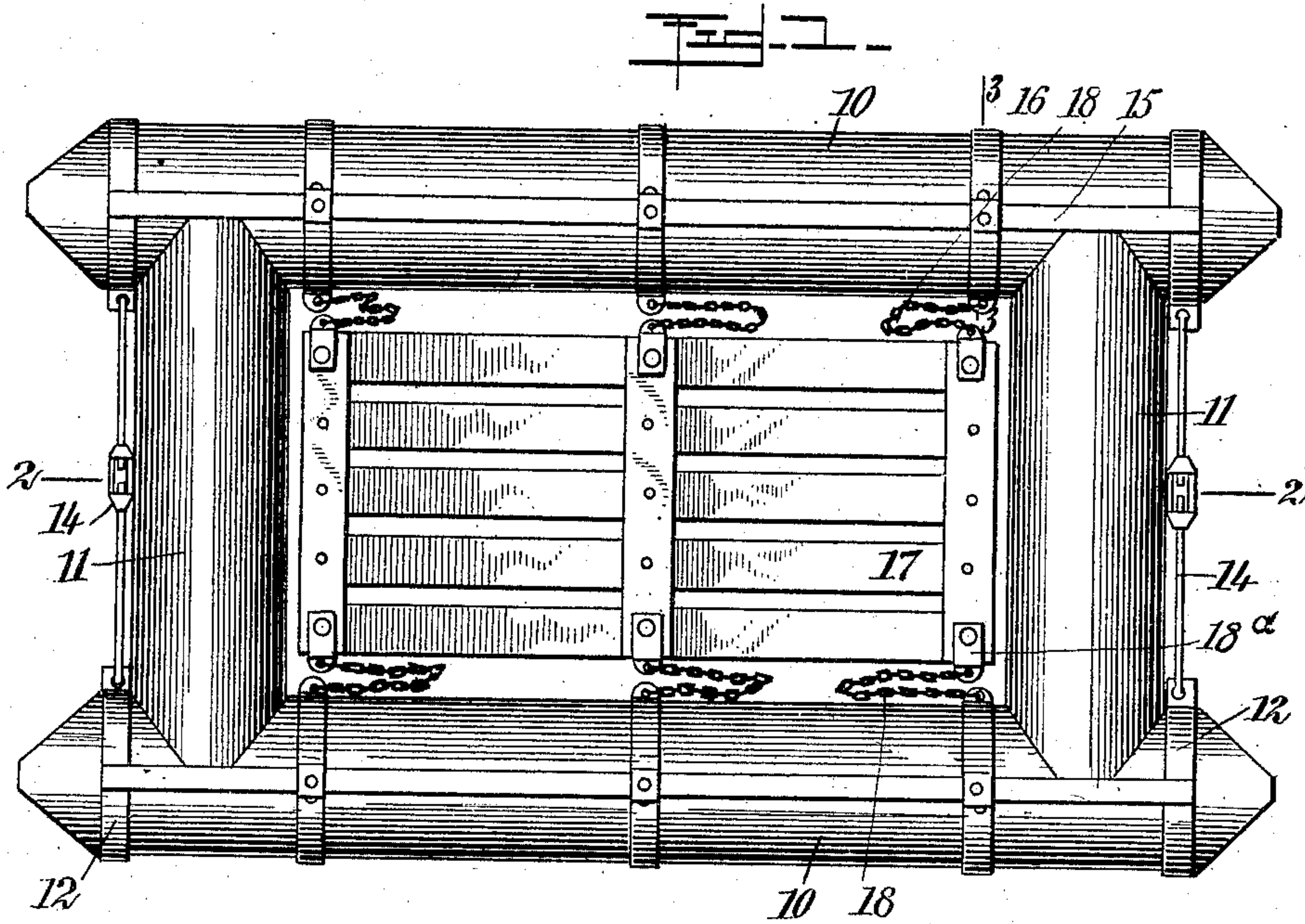
No. 850,847.

PATENTED APR. 16, 1907.

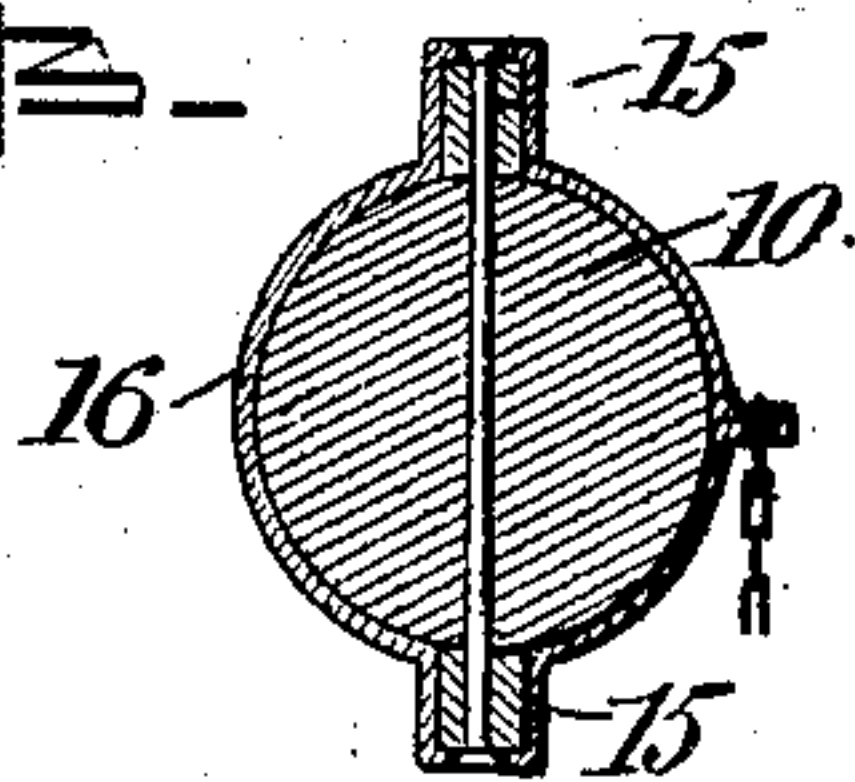
P. C. PETRIE.
LIFE RAFT.

APPLICATION FILED JUNE 2, 1905.

2 SHEETS—SHEET 1.



WITNESSES:
Geo. O. Kingstun
Wm. B. Owens



INVENTOR
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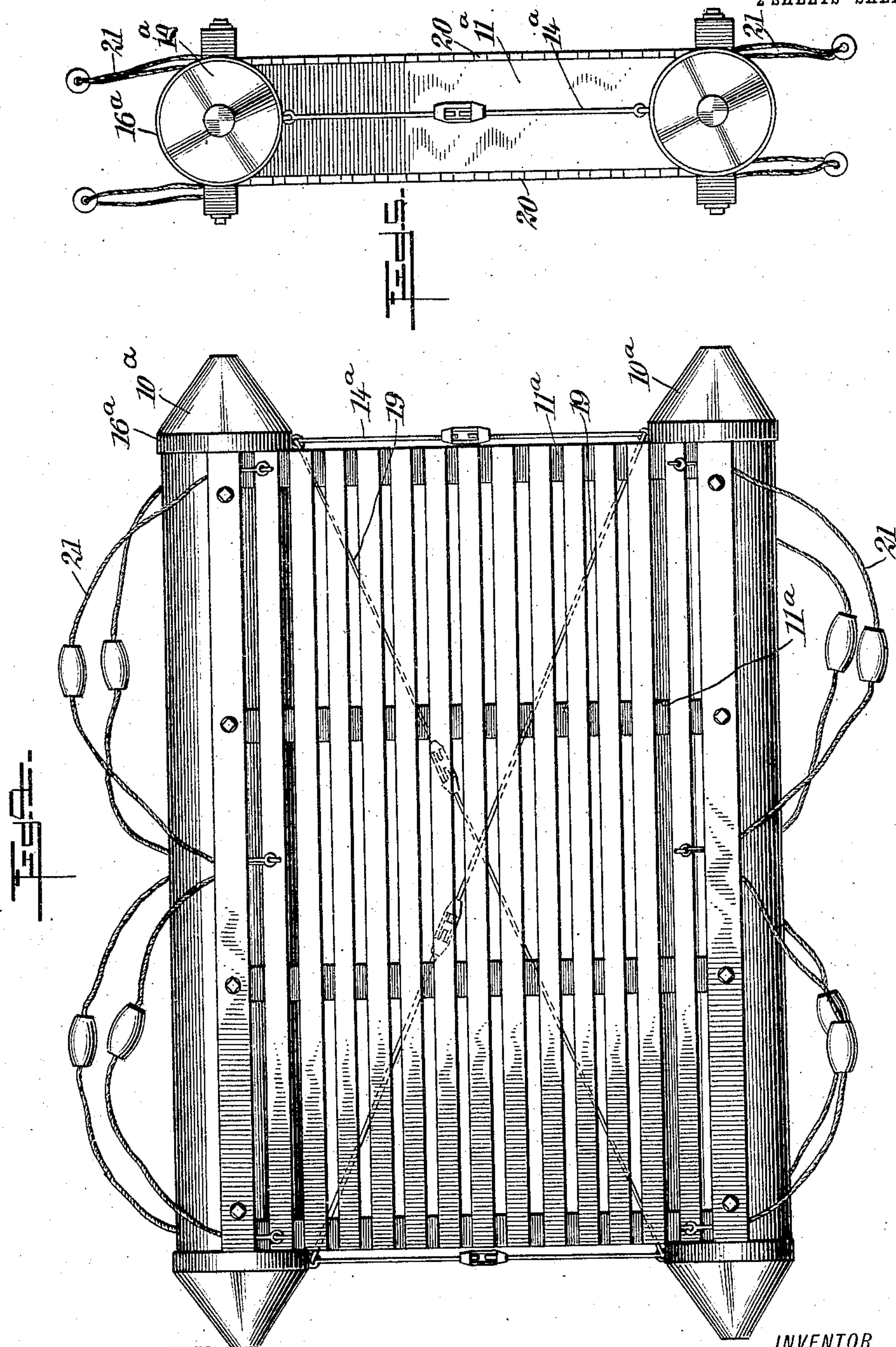
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Geo. B. Kingsbury
Isaac B. Oliveris.

INVENTOR

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UNITED STATES PATENT OFFICE.

PETER CONRAD PETRIE, OF NEW YORK, N. Y.

LIFE-RAFT.

No. 850,847.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed June 2, 1905. Serial No. 263,370.

To all whom it may concern:

Be it known that I, PETER CONRAD PETRIE, a citizen of the United States, and a resident of the city of New York, Flushing, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Life-Raft, of which the following is a full, clear, and exact description.

The essential object of my invention is to provide a practically indestructible life-raft with a maximum passenger-carrying capacity proportionate to its size.

Heretofore it has been common practice to construct the raft principally of metallic cylinders or pontoons suitably fastened together with decks between them. These rafts, while sufficiently buoyant, deteriorate rapidly, owing to the corrosive action of the salt air, and are thereby weakened and made leaky, and, further, such rafts are extremely liable to puncture, which renders them entirely unfitted for use.

In carrying out my invention I provide side and fore and aft and, if desired, end or thwartwise floats or cylinders of a solid mass of wood. By experiment I have found that while other materials may be used the only wood completely suited to this purpose, both in point of toughness and buoyancy, is the wood known as "*Palo de balsa*." This wood I form into the floats or cylinders referred to and fastened together in a peculiar manner, which enables me to produce an extremely buoyant and practically indestructible life-raft, since the wood *Palo de balsa* is durable and tough and capable of standing hard usage without deterioration.

My invention involves various other features of major or minor importance, all of which will be fully set forth hereinafter and particularly pointed out in the claims.

Reference is had to the accompanying drawings, which illustrate as examples two manners in which my invention may be practically embodied. In these drawings like characters of reference indicate like parts in the several views, and in which—

Figure 1 is a plan view of one form of the invention. Fig. 2 is a section thereof on the line 2 2 of Fig. 1. Fig. 3 is a cross-section of one of the floats on the line 3 3 of Fig. 1. Fig. 4 is a plan view of a modified form of the invention, and Fig. 5 is an end view of the same.

Referring to Figs. 1, 2, and 3, 10 indicates the solid *Palo de balsa* side or fore and aft

cylinders or floats, and 11 indicates end or thwartwise floats or cylinders. The end floats 11 are provided with saddle-like ends which fit the rounding sides of the side floats 10, and the side floats are provided with straps 12, encircling their end portions and connected in pairs by tie-rods and turnbuckles 14. These tie-rods and turnbuckles exert a stress tending to draw the side floats together, which tendency is resisted by the end floats, thus forming a rigid structure possessing maximum durability. The side floats 10 are provided at their outer and lower edges with battens or cleats 15, and these are riveted or bolted into the floats, as shown in Fig. 3. If desired, metallic straps 16 may be provided, which straps embrace the side floats and battens and are held by the bolts or rivets above described. The deck 17 of the raft has a rigid structure of slats, as the drawings show, and it is connected to the floats by means of chains 18, attached to the metal straps. These chains permit the deck to hang below the level of flotation of the float. The chains are attached to the deck by straps 18^a, as shown. The deck 17 is of a size which permits it to move freely between the floats, and it therefore is dropped below the raft no matter which side of the raft happens to be uppermost. When the raft is overboard, the deck will sink below the raft and be sustained by the chains 18. The passengers on the raft will stand on the deck inside of the floats 10 and 11. Consequently portions of the bodies of the passengers will be submerged, and the weight which the raft will be required to sustain will be considerably reduced. This gives to the raft a greater carrying capacity than otherwise, and it also enables it to carry its passengers more safely, since there is less danger of the passengers washing overboard.

The construction shown in Figs. 4 and 5 involves the side floats 10^a and thwartwise sections 11^a, which sections may be formed, as the floats 10^a, of the *Palo de balsa* wood, or they may be formed of other wood or material. The ends of the floats 10^a are strapped, as indicated at 16^a, and the floats are drawn together by tie-rods and turnbuckles 14^a, as before explained, the ends of the thwartwise sections 11^a being saddle-shaped to receive the fore and aft floats 10^a, the same as described with respect to Figs. 1 and 2. I also provide crossing diagonal tie-rods and turnbuckles 19, which impart additional rigidity

to the structure. In this manner the raft is provided on each side with a slatted deck 20, fastened by spikes or otherwise to the thwart-wise sections 11^a. 21 indicates life - lines 5 which are attached to the raft in the usual manner.

These rafts may be fitted for use on sea-going craft by supplying them with lockers for the necessary stores of food, water, signals, &c. 10

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

1. A life-raft, consisting of side and end 15 floats formed of solid logs of buoyant wood, the end floats having saddle-shaped ends fitting upon the side floats a short distance from their ends, longitudinally-extending cleats on the upper and lower sides of the side 20 floats, bands on the side floats, the intermediate bands embracing the cleats, bolts passing through the said bands, cleats and floats, tie-rods provided with turnbuckles and secured to the bands on the projecting ends of 25 the side floats, a slatted deck movable freely between the floats, and chains secured to the deck and to the intermediate bands of the said side floats.

2. A life-raft, comprising side and end 30 floats formed of solid logs of buoyant wood, the end floats having saddle-shaped ends fit-

ting upon the side floats a short distance from their ends, longitudinal cleats on the upper lower sides of the side floats, bands on the side floats, the intermediate bands embracing the cleats, tie-rods secured to the bands on the ends of the side floats projecting beyond the end floats, a slatted deck movable freely between the floats, and chains secured to the deck and to the intermediate bands of the said side floats. 35 40

3. A life-raft, comprising side members formed of solid logs of buoyant wood, transverse or thwart members having saddle-shaped ends fitting upon the side members, 45 the side members having their ends projecting beyond the transverse or thwart members, longitudinal cleats on the upper and lower sides of the side members, bands on the projecting ends of the side members, tie-rods 50 provided with turnbuckles and secured to the bands on the ends of the side members projecting beyond the transverse or thwart members, and a slatted deck carried by the said members. 55

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER CONRAD PETRIE.

Witnesses:

JAMES SARVIS, Jr.,
H. L. DES ANGES.