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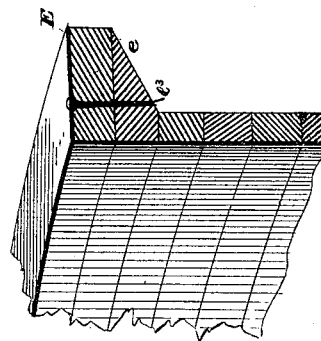
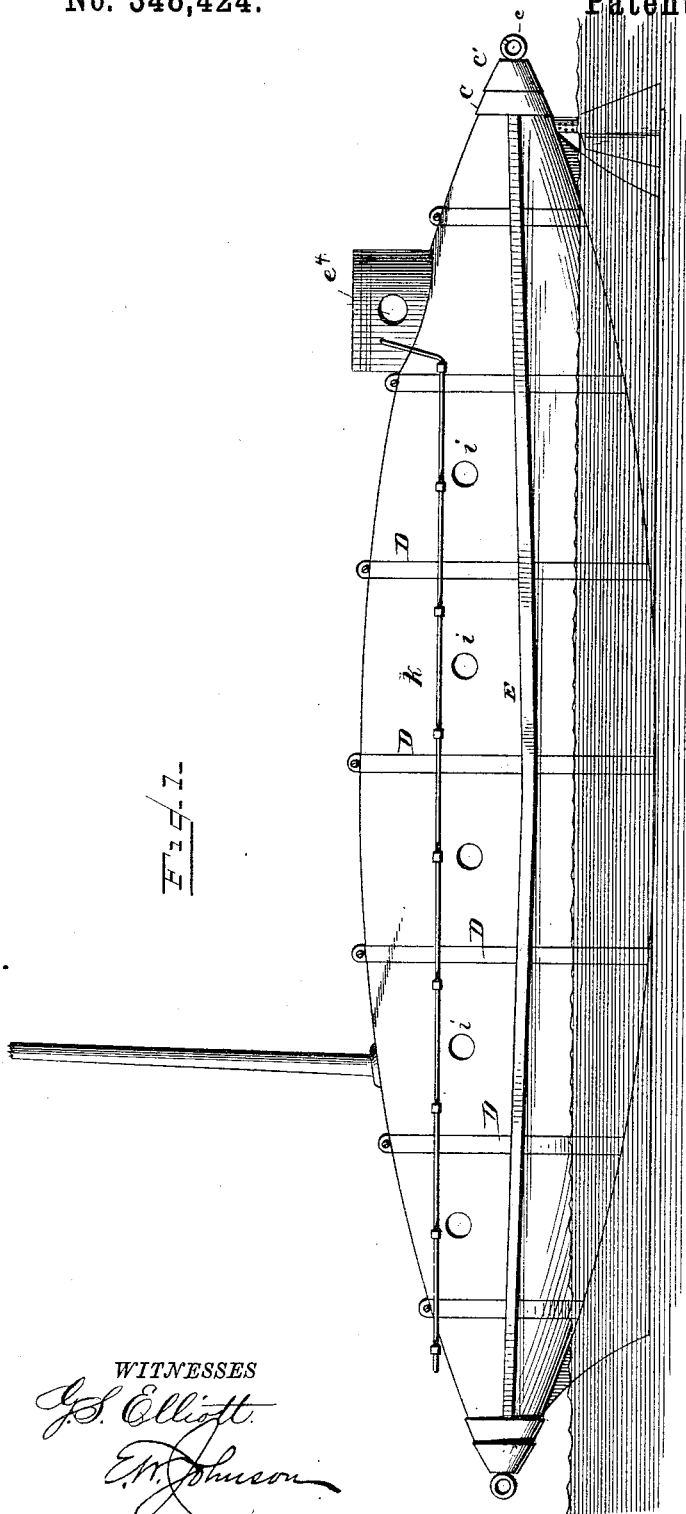
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A. L. SHEARS.

LIFE BOAT.

No. 348,424.

Patented Aug. 31, 1886.



WITNESSES

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E. W. Johnson.

Albert L. Shears.

INVENTOR

Attorney

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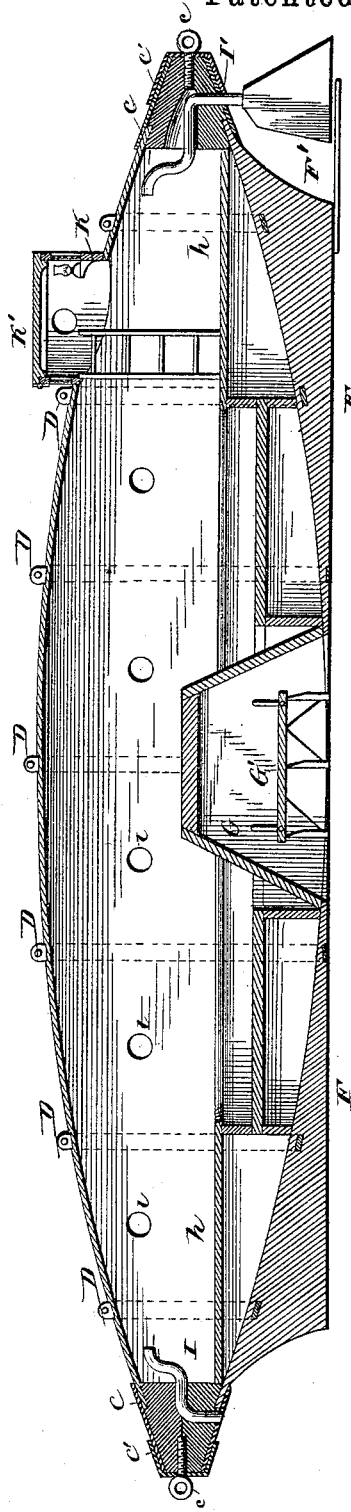


Fig. 2.

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Fig. 3.

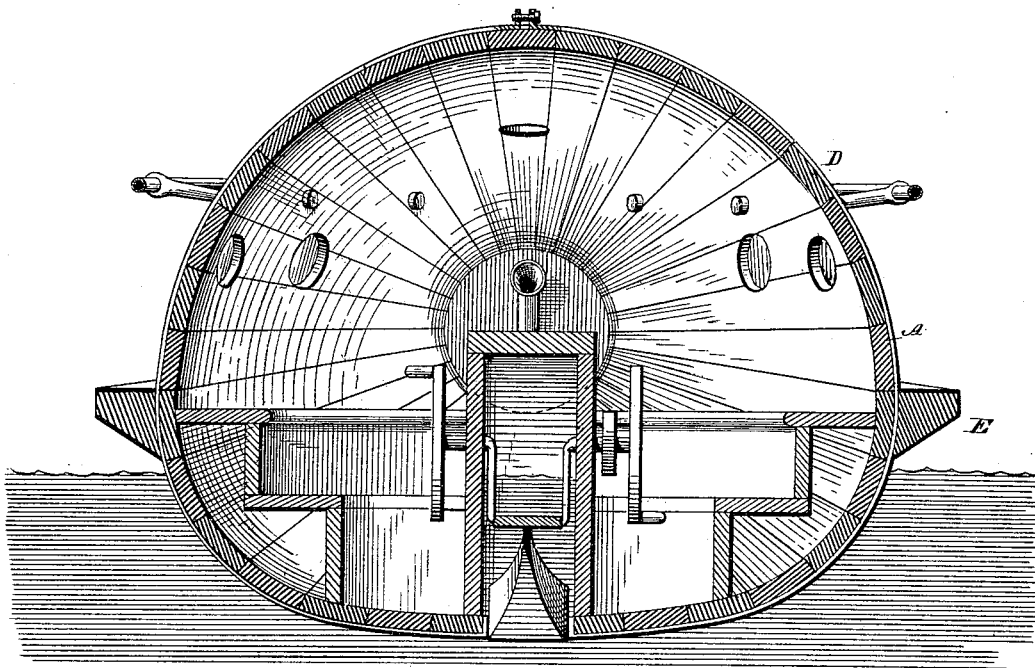
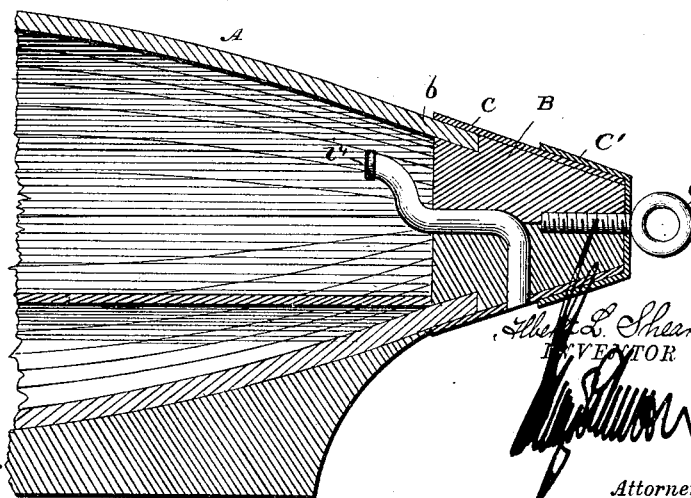


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALBERT L. SHEARS, OF ST. LOUIS, MICHIGAN.

LIFE-BOAT.

SPECIFICATION forming part of Letters Patent No. 342,424, dated August 31, 1886.

Application filed February 12, 1886. Serial No. 192,418. (No model.)

To all whom it may concern:

Be it known that I, ALBERT L. SHEARS, a citizen of the United States of America, residing at St. Louis, in the county of Gratiot and State of Michigan, have invented certain new and useful Improvements in Life-Boats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in boats or vessels, the object of the same being to provide a boat which can be constructed without the use of ribs, the deck and hull of said boat or vessel being composed of staves which run lengthwise with the vessel, said staves being clamped together by bands and constructed so as to form a keel and outwardly-extending gunwale or footway.

My invention also consists in the construction and combination of the parts as will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, which illustrate my invention, Figure 1 is a side view of a boat or vessel constructed in accordance with my improvement. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is an enlarged detail sectional view; and Fig. 5 is a detail perspective view, partly in section.

The upper portion or deck of the vessel is substantially semicircular in cross-section, while the hull is flattened, as fully shown in Fig. 3. The hull and deck are made up of a series of longitudinal staves, A, the greatest width of which is about the center of the vessel. Said staves taper equally toward each end, so as to provide a conical-shaped structure. At each end of the vessel are located blocks BB, which are also conical shaped, being substantially the frustum of a cone. These blocks at their inner ends are recessed, as shown at *b*, and within these recesses the ends of the staves A lie, and are securely held in place by metallic sleeve C, which completely covers the exterior of the conical blocks B. This sleeve C is held in place over the ends

of the staves by a cap, C', which is securely held in place by an eyebolt, *c*, which serves as a convenient means for towing the vessel or attaching a cable thereto. The staves A are held in place at suitable intervals by bands D, the major portion of which pass completely around the vessel. The upper ends of these bands are bent upwardly, and they are secured to each other by bolts or other adjustable connecting means, so that they can be tightened when desired. The staves E, which constitute the gunwales of the boat, project from the main portion of the structure, so as to form a foot-rest and passage way around the vessel. Said stave or gunwale at suitable intervals is provided with openings, through which the bands D, for holding the vessel together, pass, and also with openings *c'*, through which the water may flow from the surface of the gunwale. The stave *c*, which is located immediately beneath the gunwale E, projects outwardly, as shown in Fig. 5, and is tapered on its under side, thus providing a brace or support for said gunwale, and the stave *c* is also slotted or recessed so that the water and the securing-bands D may pass through the same. The center stave, F F, of the hull project downwardly, so as to form a keel, and these portions F F terminate near a well which is located at the center of the vessel for containing the propelling mechanism. The keel F is secured to the body of the vessel in the same manner as the gunwale E—that is to say, it is recessed at suitable intervals, so that the bands may pass through said recess and hold the keel rigidly in position.

G refers to a central well, which is located in the hull, the upper portion of which extends above the water-line, and within this well is located the propelling mechanism G', which consists of a series of paddles, which are attached to a horizontal bar, said bar being pivoted to crank-arms located within the well, said crank-arms extending through the sides thereof, where they are provided with means for rotating the same. When the crank-arms are rotated, the bar is first lowered and then moved rearwardly, so that the paddles will engage with the water and force the boat forward. After the stroke is completed they are moved forwardly into a position for another stroke. The crank-arms within the well may be oper-

ated either by hand or other power. The interior of the vessel below the gunwale and water-line, is provided with floors *h h* and seats, beneath which are located air-tight compartments, which may also be utilized as storage compartments for ballast or baggage. The sides of the deck are provided with suitable windows, *i i*, through which lights may be admitted to the interior of the vessel. The blocks at the ends of the vessel are each provided with tubes *I I'*, which extend through the caps *C'*, as shown, and through these tubes air is admitted to the interior of the vessel. The rear of the block is cut away interiorly, so that the tube *I'*, which is bent, as shown in Fig. 2, can be swung within the same, this tube serving as a rudder-support and tiller. The lower end of this tube *I'* is perforated, so that air can enter the same above the rudder, which is connected thereto. The stern portion of the keel has a rod, *F'*, secured thereto, which serves as a support for the rudder. The tubes are provided with caps *i'*, which can be placed thereon when desired, so as to prevent water in rough weather entering the interior of the vessel. Near the stern of the vessel a cylindrical casing, *K*, is secured to the deck, and said casing has attached thereto a trap-door, *K'*, for closing the opening in the same. This casing is provided with windows *e'* and a bracket for supporting a light or signal. From this casing and around the deck of the vessel extends a hand-rail, *h*. Near the forward end of the vessel the deck is provided with an opening, in which a mast may be secured for the support of a sail or signal. The mast, if desired, may be made in sections, so that it can be stored away in the interior of the vessel and erected without going upon the deck by placing one of the sections through the opening and attach the next section thereto from the interior of the vessel. If desirable, life-lines may be secured to the gunwale or to other portions of the hull. The brackets which support the hand-rail preferably consist of tubes, which extend to the interior of the vessel, and said tubes have openings therein, which will serve to admit fresh air to the interior of the boat, and said tubes have valves or caps to close the same.

50 A boat or vessel constructed as herein described will be simple and strong and cannot be injured by the waves, and will always keep in proper position.

I claim—

55 1. The combination, in a life-boat, of a series of longitudinal staves, *A A*, forming the upper and lower portions of the body, a stave, *E*, located between the middle staves and projecting laterally to form a gunwale, and a series of bands, *D D*, externally embracing the staves and passing through a gunwale, and devices for tightening said bands, substantially as set forth.

65 2. The combination, in a life-boat, of a series of longitudinal staves, *A A*, forming the upper and lower portions of the body, a stave, *E*, located as described, and projecting later-

ally to form a gunwale, external bands, *D D*, passing through said gunwale and recessed blocks *B*, and metallic caps *C'*, substantially as set forth. 70

3. The combination, in a life-boat, of a series of longitudinal staves, *A A*, forming the upper and lower portions of the body, a stave, *E*, located as described and projecting laterally to form a gunwale, external bands, *D D*, passing through said gunwale, recessed blocks *B*, and metallic caps *C'*, and bolts for retaining said caps in position, substantially as set forth. 80

4. The combination, in a life-boat, of a series of longitudinal staves, *A A*, forming the upper and lower portions of the body, a stave, *E*, located as described and projecting laterally to form a gunwale, external bands passing through the same, blocks *B*, recessed to receive the ends of the staves, caps *C'*, one of said blocks being centrally recessed, and a rudder, and tiller therefor, the latter adapted to play in said central recess, substantially as set forth. 85 90

5. A vessel or boat having its body portion made up of a series of longitudinal staves which are attached to conical end pieces, and clamped thereon by bands which cover said end pieces, substantially as shown, and for the purpose set forth. 95

6. A vessel consisting of hull and deck made up of a series of longitudinal staves, and provided with a projecting gunwale, *E*, forming one of said staves, and a keel, *F*, the ends of the staves being secured to conical blocks and pressed upon each other by bands, substantially as shown, and for the purpose set forth. 100 105

7. A vessel consisting of a body portion made up of a series of longitudinal staves which taper equally toward each end, and are secured to recessed end pieces by bands, a series of bands for pressing the staves upon each other, a keel, *F*, and gunwale *E*, secured between the staves and provided with openings through which the bands *D* pass, substantially as shown, and for the purpose set forth. 110

8. In a vessel or boat constructed substantially as described, the end blocks, *B*, having recesses *b* for the reception of the ends of the staves, a band, *C*, covering said block, and a cap, *C'*, partially covering said band and held in place by an eyebolt, *e*, parts being organized substantially as shown, and for the purpose set forth. 115 120

9. In a vessel constructed substantially as described, a hand-rail extending around the deck of the vessel and provided with tubes or supporting arms which extend to the interior of the vessel, and caps or valves for closing said tubes, substantially as shown, and for the purpose set forth. 125

In testimony whereof I affix my signature in presence of two witnesses. 130

Witnesses: ALBERT L. SHEARS.
WILLIAM H. NEATTE,
WILLIAM A. MCOMBER.