H. W. BROADY.

LIFE BOAT AND THE LIKE.

APPLICATION FILED JUNE 19, 1913.

1,226,944.

Patented May 22, 1917.

4 SHEETS—SHEET 1.

Fig. 1.

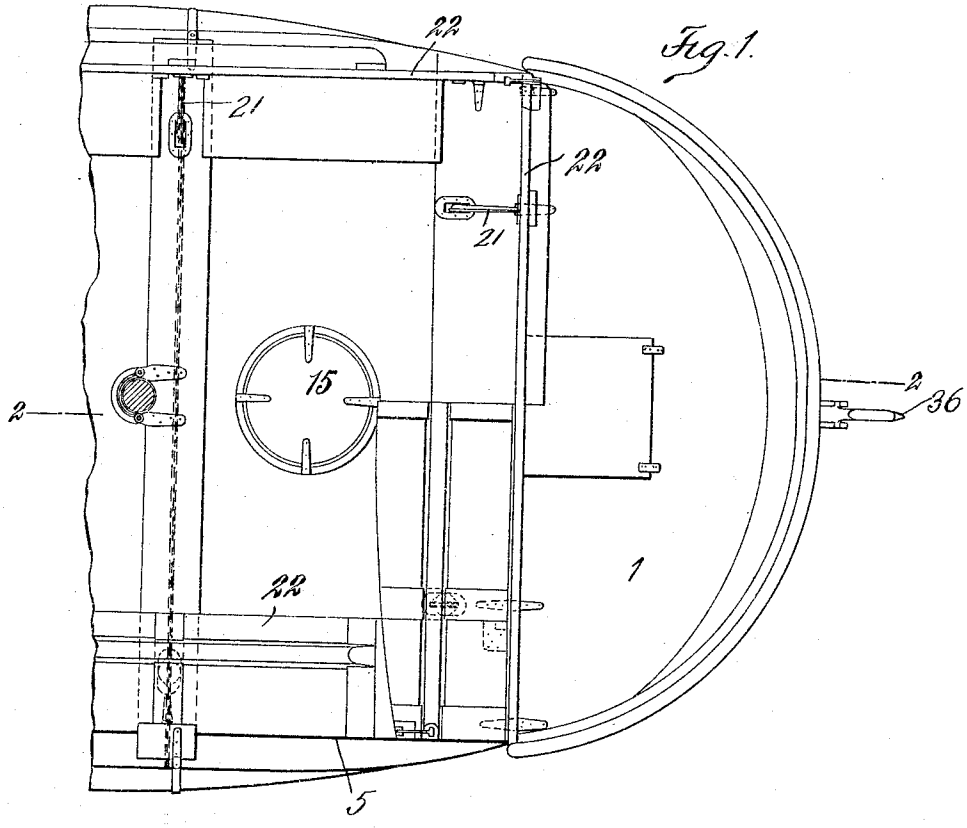
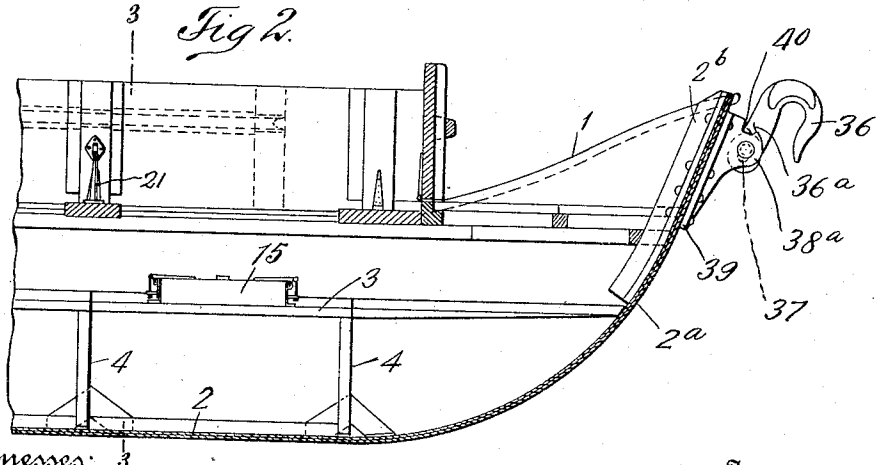


Fig 2.



Witnesses:
Bernard Abby
W. C. Lawson

Inventor
Harry W. Broady
By his Attorney
Joseph F. O'Brien

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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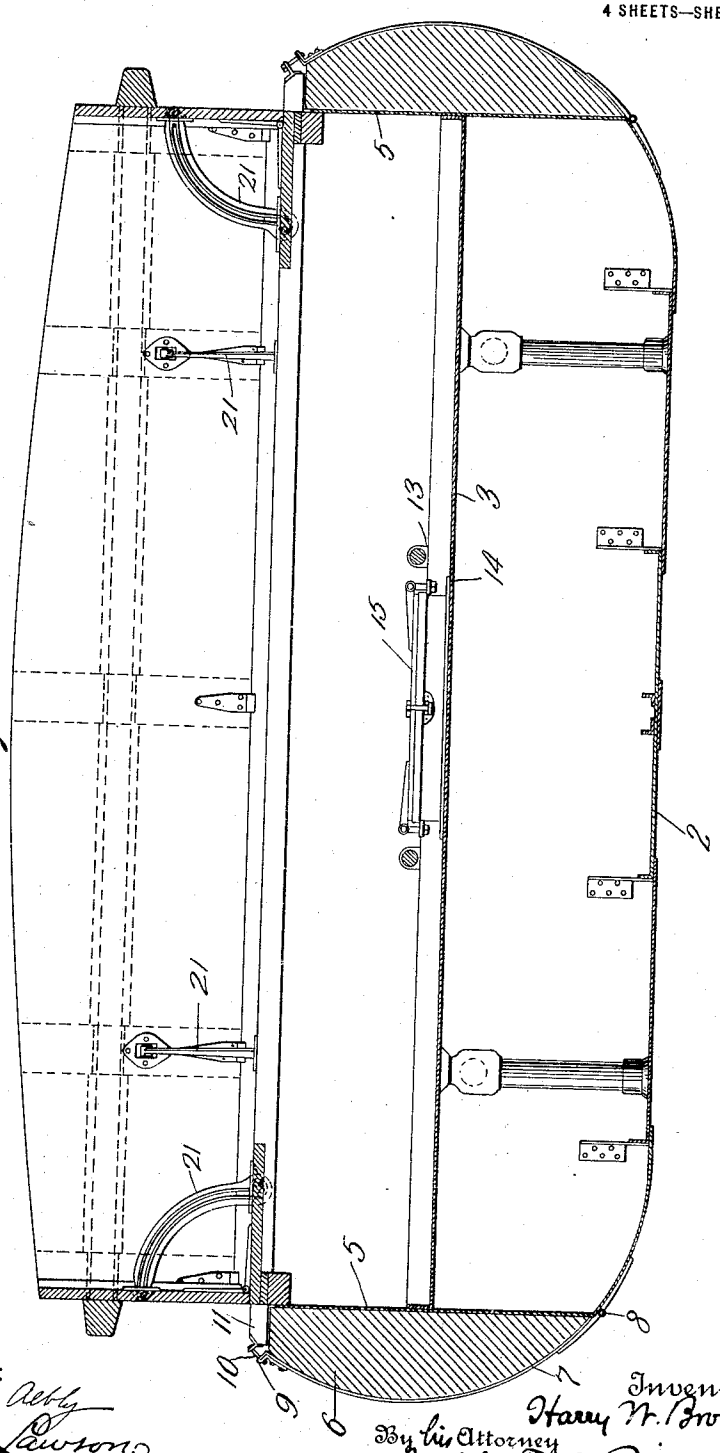
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4 SHEETS—SHEET 2.

Fig. 3.



Witnesses:
Bernard Abbey
U. C. Lawson

Inventor
Harry W. Broady
By his Attorney
Joseph T. O'Brien

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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4 SHEETS—SHEET 3.

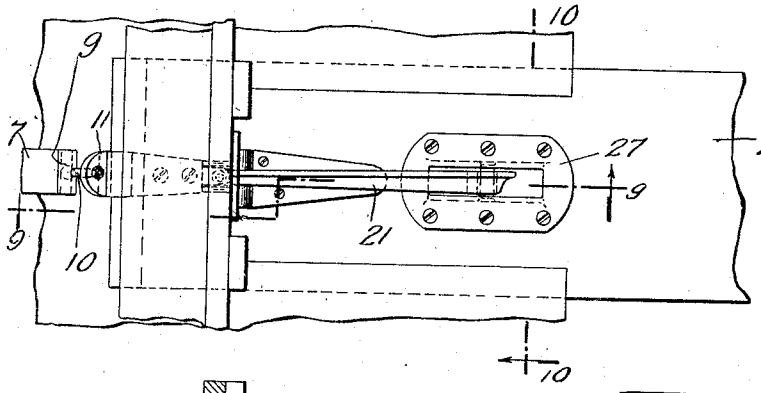


Fig. 4.

Fig. 5.

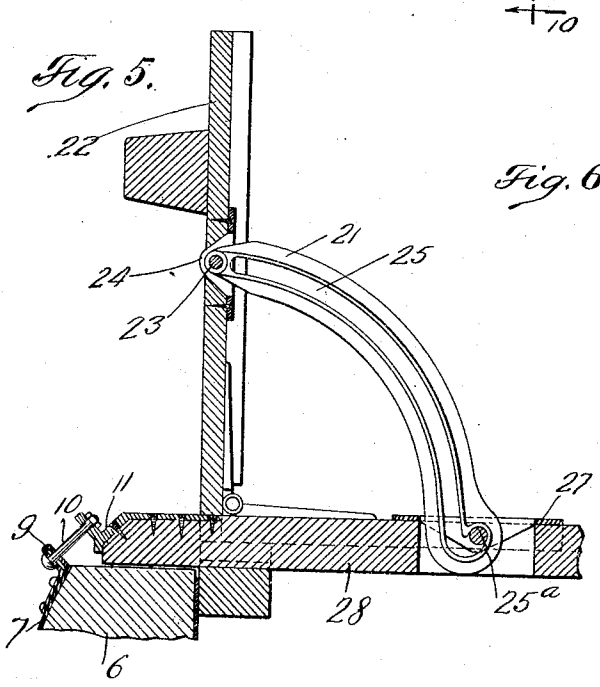
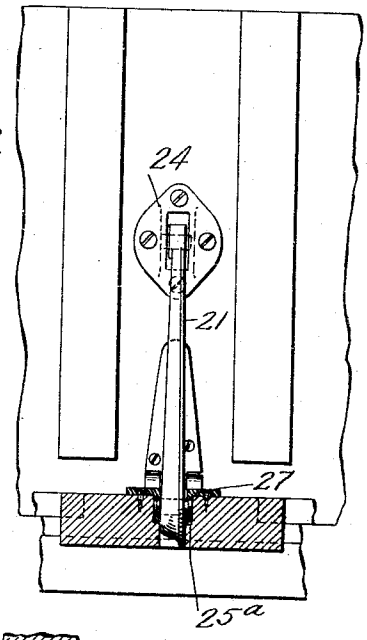


Fig. 6.



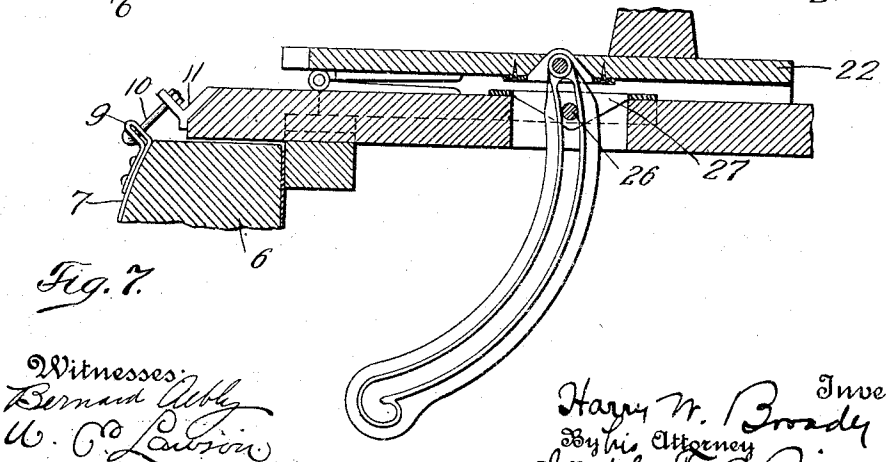


Fig. 7.

Witnesses:
Bernard Gibby
W. C. Lawson

Inventor
Harry W. Broady
By his Attorney
Joseph F. O'Brien

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

H. W. BROADY.

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4 SHEETS—SHEET 4.

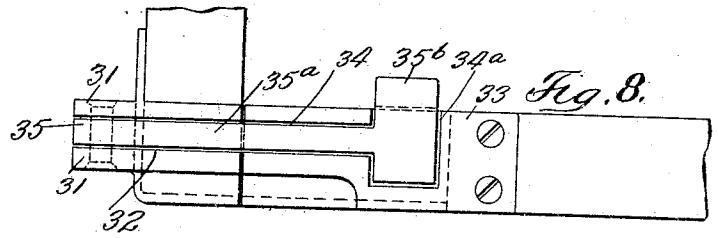


Fig. 8.

Fig 10.

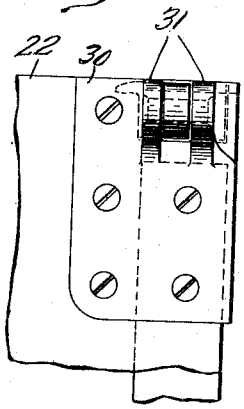
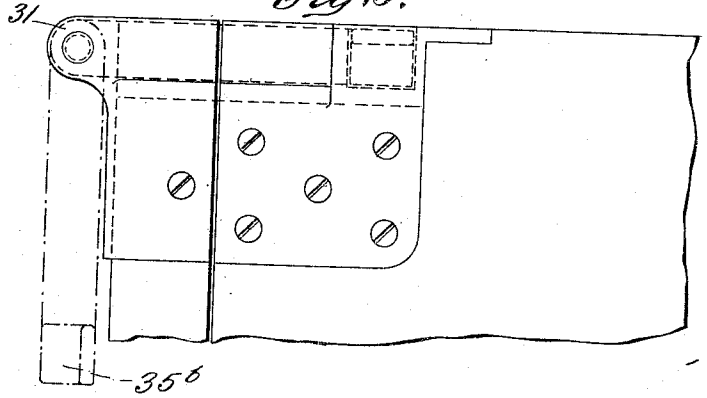


Fig. 9.



Witnesses:
Bernard Abby
W. C. Lawson

Inventor
Harry W. Broady
By his Attorneys
Joseph P. O'Brien

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HARRY W. BROADY, OF BAYSIDE, NEW YORK, ASSIGNOR TO WELIN MARINE EQUIPMENT COMPANY, A CORPORATION OF NEW YORK.

LIFE-BOAT AND THE LIKE.

1,226,944. Specification of Letters Patent. Patented May 22, 1917.

Application filed June 19, 1913. Serial No. 774,518.

To all whom it may concern:

Be it known that I, HARRY W. BROADY, a citizen of the United States, and a resident of Bayside, borough of Queens, county of Queens, and State of New York, have invented certain new and useful Improvements in Life-Boats and the like, of which the following is a specification.

This invention relates to improvements in life boats and the like.

A feature of my invention is the provision in a nestable life boat comprising a rigid shell and having a superstructure formed of rigid sides and end pieces or weather-boards, adapted to be raised or lowered or folded relatively to the shell, of a simple automatic locking device which will first automatically lock such rigid sides and ends when the same are moved into vertical position, which will take up comparatively little space when in a locked position, will be entirely out of the way when in unlocked or collapsed position, and will be inexpensive to manufacture.

Another feature of my invention is the combination with a life boat having collapsible sides or weather-boards as aforesaid, of a corner lock adapted to aline the side and end pieces respectively at the corners and to securely lock the same together so that a close substantially waterproof joint will be provided at each corner or joint between the side and end boards respectively.

In the accompanying drawings, in which similar reference characters designate corresponding parts throughout the several views,

Figure 1 is a plan view of the front part of a boat embodying my invention;

Fig. 2 is a longitudinal section on the line 2—2 of Fig. 1;

Fig. 3 is a cross-section on the line 3—3 of Fig. 2;

Figs. 4, 5, 6, and 7 are enlarged detail views of the automatic side locking devices for the folding superstructure or weather-boards, and also of the upper connection of my improved fender connecting devices, Fig. 4 being a plan view showing the rigid sides in upright locked position, Fig. 5 a vertical section on the line 9—9 of Fig. 4, Fig. 6 a section on the line 10—10 of Fig. 4 and Fig. 7 a section similar to Fig. 5 with the weather-boards or superstructure in folded or collapsed position;

Figs. 8, 9 and 10 are enlarged detail views respectively of the corner locks embodying my invention, Fig. 8 being a plan view showing the lock in use, the side end boards being shown in upright position and alined by said locking devices, Fig. 9 being a side elevation of the corner or joint formed by the meeting of the side and end boards and showing in dotted lines a locking device both in its locked and unlocked positions, and Fig. 10 being an end elevation of the device illustrated in Figs. 8 and 9.

Referring now to the accompanying drawings 1 designates a boat preferably having a substantially flat bottom 2 and a metallic double bottom, floor or deck 3 spaced from the bottom 2 and having a series of water-tight bulkheads 4 formed between the double bottom and bottom proper. Said boat is preferably provided with flat sides 5 throughout the amidship section, to which flat sides are preferably attached supplementary removable or detachable sides or fenders 6 preferably formed of springy and highly buoyant material such as balsa wood, which fenders, in addition to their usual function of protecting the sides of the boat against injury, round out the contour and add to the strength and stability thereof. Such a boat is described in an application filed by Andreas P. Lundin, Serial No. 694,432, and is not claimed as my invention.

By my invention, however, I provide means for readily and quickly attaching and securing to and detaching from the flat sides 5 of such a boat the balsa wood fenders 6. As illustrated, I provide at a plurality of places along the flat sides of the boat metal bands 7 hinged at one end to the bottom of the boat as at 8 adapted to embrace the fenders 6, and having at its upper end a reinforced portion 9 provided with an eye through which extends a bolt 10 connecting said reinforced portion with a Y-piece 11 secured to the outer ends of the cross seats 28 at the gunwale of the boat (see Figs. 1, 3, 4, 5 and 7). Obviously, by the use of my device above described a fender may be quickly and easily set in place and secured to the sides of the boat and may be readily detached therefrom for the purpose of painting such sides, inspection or otherwise.

Another feature of my improved boat is the provision of simple and inexpensive automatic locking devices for the rigid folding sides and end pieces. As shown, these de-

vices comprise an arc-shaped arm 21 pivoted to a side or end piece 22 as at 23 in a bearing plate 24, said arm 21 being provided throughout its length with a narrow slot 25 terminating at its lower end in a locking notch portion 25[a] extending laterally from the normal arc of the slot. A pin 26 formed integral with a plate 27 suitably secured in one of the cross seats 28 of the boat extends within said slot and permits a traveling connection between the arm 21 and pin 26. When the sides or ends 22 are folded as illustrated in Fig. 7 it is only necessary to simply swing the sides up vertically whereupon the arm 21 will be guided by the slot and pin connection until the side or end piece 22 is in its vertical position; whereupon the arm will fall downwardly by gravity and the pin 26 will seat in the locking notch 25[a]. It may be seen that this is an extremely simple device and one which is at all times reliable and may be cast from any suitable metal so as to be manufactured at a very small cost, and further when the sides or end pieces are in folded position is out of the way, and is not affected by material stored beneath the seats.

A feature of my improved boat is the provision of means for locking the corners or meeting sides and end pieces which, as illustrated, comprise a bearing plate 30 connected to one of the meeting end or side pieces 22 and provided with a knuckle 31, the groove portion 32, and the other meeting side or end piece is provided with a socket plate 33 having a groove 34 adapted to aline with the groove 32 in the opposing meeting member when the parts are in proper upright position and said groove 34 terminates at its other end in an enlarged socket 34[a] preferably extending laterally of said groove or at right angles thereto. A bolt 35 which is pivoted at one end in the knuckles 31, has a shank portion 35[a] adapted to extend within and assist in alining the grooves 32 and 34 and is provided at its other end with a head 35[b] adapted to seat in the socket 34[a]. Obviously when the bolt 35 is pressed home within the grooves and socket it will aline the meeting members at the corner and form a close joint therebetween.

Having described my invention, I claim:

1. A metallic nestable life-boat embodying a rigid shell having a well polygonal in conformation to permit immediate loading and a superstructure formed of rigid side and end members adapted to be raised and lowered relatively to the shell, means for automatically locking such side and end members when the same are moved into vertical position and an independent lock for alining the meeting edges of such side and end members and securely locking the same together.

2. A metallic nestable life-boat embodying a rigid shell having a well polygonal in conformation to permit immediate loading and a superstructure formed of rigid side and end members adapted to be raised and lowered relatively to the shell, means for automatically locking such side and end members when the same are moved into vertical position, an independent lock for connecting such meeting side and end members together at the corners when in vertical position, comprising a bearing plate connected to one member and provided with a groove, a bolt pivoted to said bearing member adapted to have a portion of its shank seated in said groove and a groove and socket plate on the opposing member adapted to receive and permit the seating of the remaining portion of said bolt to aline and lock the members together.

In witness whereof, I have signed my name to the foregoing specification in the presence of two subscribing witnesses.

HARRY W. BROADY.

Witnesses:
FREDERICK P. RANDOLPH,
HELEN V. HOLMES.

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