F. F. LOWNDES.

LIFE SAVING APPARATUS FOR BOATS.

APPLICATION FILED NOV. 18, 1919.

1,383,551. **Patented July 5, 1921.**

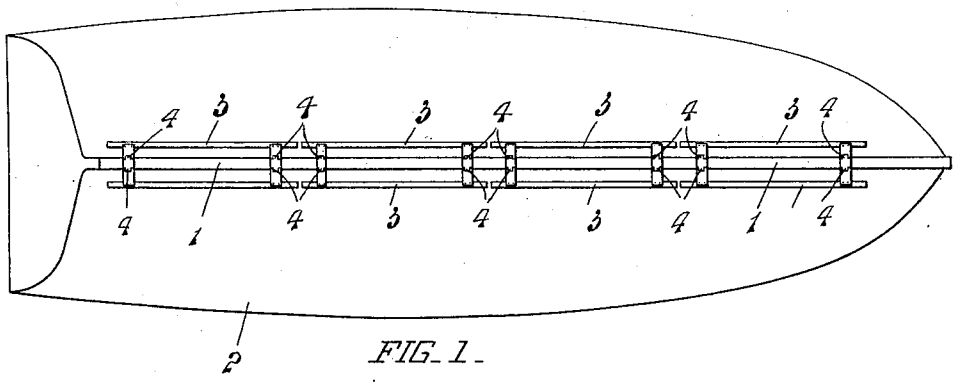


FIG. 1.

FIG. 2.

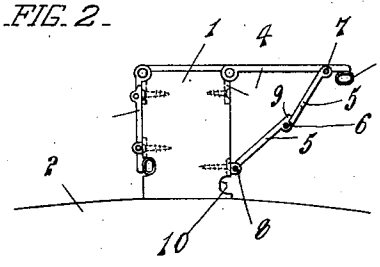
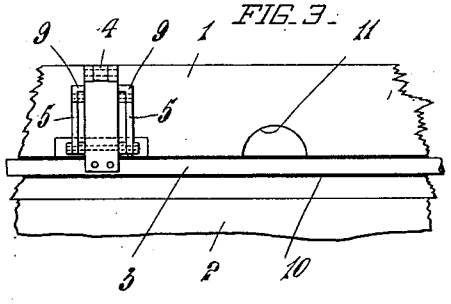


FIG. 3.



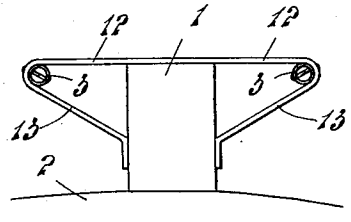


FIG. 4.

Inventor:

Frank Forbes Lowndes

By Lawrence Langner

Attorney.

UNITED STATES PATENT OFFICE.

FRANK FORBES LOWNDES, OF GISBORNE, NEW ZEALAND.

LIFE-SAVING APPARATUS FOR BOATS.

1,383,551. Specification of Letters Patent. Patented July 5, 1921.

Application filed November 18, 1919. Serial No. 338,866.

To all whom it may concern:

Be it known that I, FRANK FORBES LOWNDES, a subject of the King of Great Britain and Ireland, residing at Gisborne, in the Dominion of New Zealand, have invented a new and useful Improvement in Life-Saving Apparatus for Boats; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to improvements in life saving apparatus for boats.

The object of the invention is to provide convenient means by which a grip may be obtained whereby shipwrecked persons will be enabled to cling to overturned boats, and whereby such overturned boats may be more easily righted to their ordinary positions.

According hereto, upon the side of the keel, rails are provided to enable a firm grip to be obtained on the boat. The rails are preferably hinged and lodged flush in recesses in the sides of the keel in order to prevent them becoming damaged, either when the life-boats are upon a ship or during launching, and also to avoid any undue reduction in speed.

The rails are so arranged that they may be readily opened from their closed positions, and when they are opened they will remain in such open position, but may be replaced in their original closed positions when desired.

The invention is illustrated in the accompanying drawings, in which:—

Figure 1, is a plan of an upturned boat with the rails shown in the open position.

Fig. 2, is an end elevation of the keel with one rail open and the other closed.

Fig. 3, is a side elevation of part of the device.

Fig. 4, is an elevation of a keel fitted with a fixed rail by way of modification.

Referring to the drawings, and more particularly to Figs. 1 to 3 thereof, upon the keel 1 of the boat 2 is mounted a rail 3 by means of hinges 4. The hinges 4 are kept open by stays 5 jointed together at 6 and linked to the hinges at 7 and to a bracket 8 on the keel 1. The joint at 6 is limited in its movement by the lug 9 (Figs. 2 and 3). Grooves 10 running along the keel form recesses to receive the rail 3 when the device is closed. The device may be opened by gripping the rail at suitably placed cavities 11 (Fig. 2) provided in the keel adjacent to the rail. The rails may be closed by pushing into the stays 5. A modification of the device is shown in Fig. 4 where the rails 3 are shown fixed by means of pieces of flat material 12 which are bent to form brackets 13 to which the rails 3 are fixed in a suitable manner. The rails 3 afford a good grip whereby a person in the water may cling to an overturned boat and enable the boat to be returned to its proper position.

What I claim is:

1. In a life saving apparatus for boats, a boat, a keel on said boat, a rail hinged to the keel to swing on an axis parallel with the keel, one rail upon each side of said keel and arranged longitudinally therewith, said rail being positioned at a slight distance from said keel to enable a grip to be secured on said boat when upturned, and whereby the said boat may be righted, substantially as described.

2. In life saving apparatus of the kind described, a boat, a keel on said boat, a rail upon each side of said keel arranged longitudinally therewith and positioned at a slight distance laterally from said keel, said rail hinged to said keel so as to enable it to be closed against the side of the said keel and means whereby the said rail may be retained in its open position, substantially as described.

3. In life saving apparatus of the kind described a boat, a keel on said boat, a rail upon each side of said keel arranged longitudinally therewith and positioned at a slight distance laterally from said keel, said rail hinged to said keel so as to enable it to be closed against the side of the said keel, means whereby the said rail may be retained in its open position and grooves upon the sides of said keel to enable rails to lie flush with the keel, substantially as described.

4. In life saving apparatus of the kind described a boat, a keel on said boat, a rail upon each side of said keel arranged longitudinally therewith and positioned at a slight distance laterally from said keel, said rail hinged to said keel so as to enable it to be closed against the side of said keel, means whereby the said rail may be retained in its open position, and cavities at intervals in the side of the said keel to enable a person's hand to be inserted to grip the rail, substantially as described.

5. In life saving apparatus of the kind described, a boat, a keel on said boat, a rail upon each side of said keel arranged longi-

tudinally therewith, and positioned at a slight distance laterally from said keel, said rail hinged to said keel so as to enable it to be closed against the side of the said keel, means whereby the said rail may be retained in its open position and the said rail made in sections so that each section may be opened and closed independently of the other sections, substantially as described.

6. In life saving apparatus of the kind described a boat, a keel on said boat, a rail upon each side of said keel, arranged longitudinally therewith and positioned at a slight distance laterally from said keel, hinges articulating said rail to said keel, stays pivoted to hinges and to said keel, said stays jointed at substantially their center so as to support the rail in an open position but to permit of it being closed against the side of the keel, substantially as described.

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

FRANK FORBES LOWNDES.

Witnesses:

S. MORRELL,

SYDNEY H. HIGGS.