

(No Model.)

2 Sheets—Sheet 1.

W. HICKMAN.
LIFE BOAT AND RAFT.

No. 473,224

Patented Apr. 19, 1892.

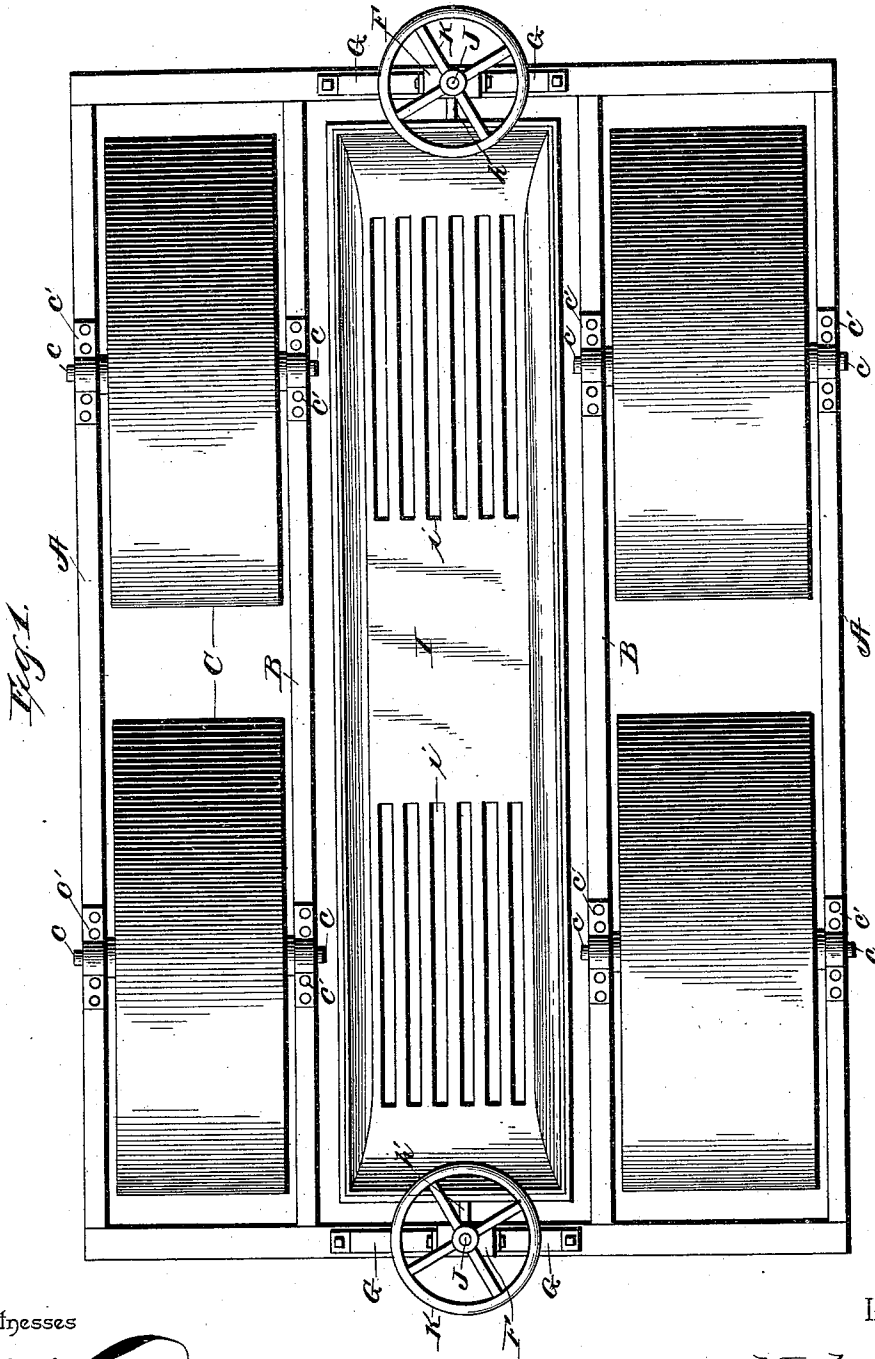


Fig. 1.

Witnesses

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D. P. Holmpton

Inventor

W. H. Hickman
 By his Attorneys,

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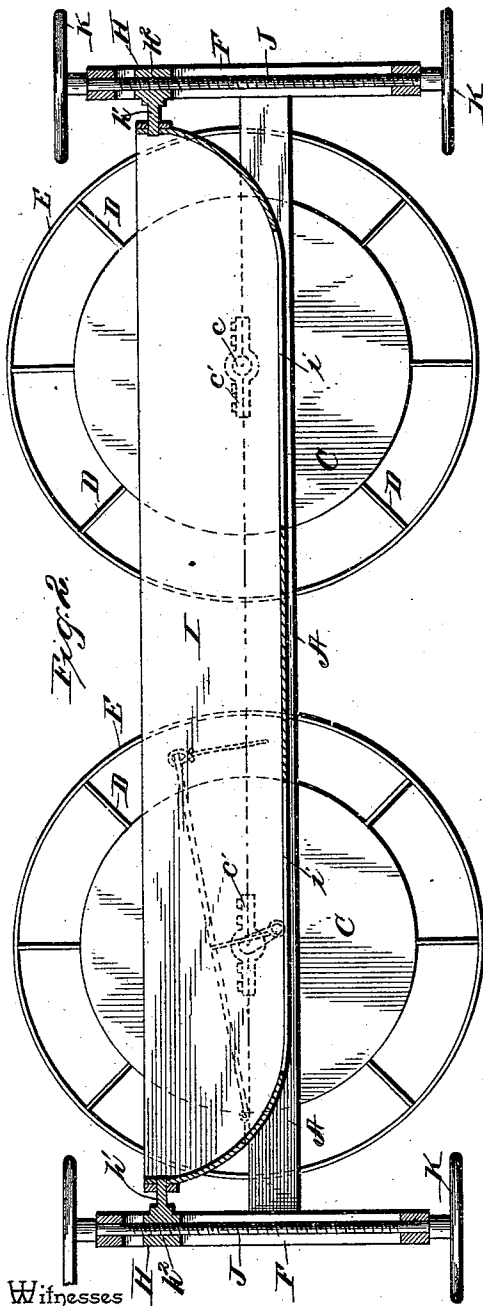


Fig. 2.

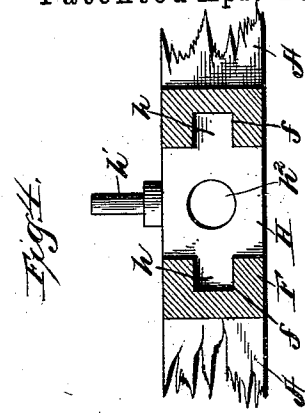


Fig. 1.

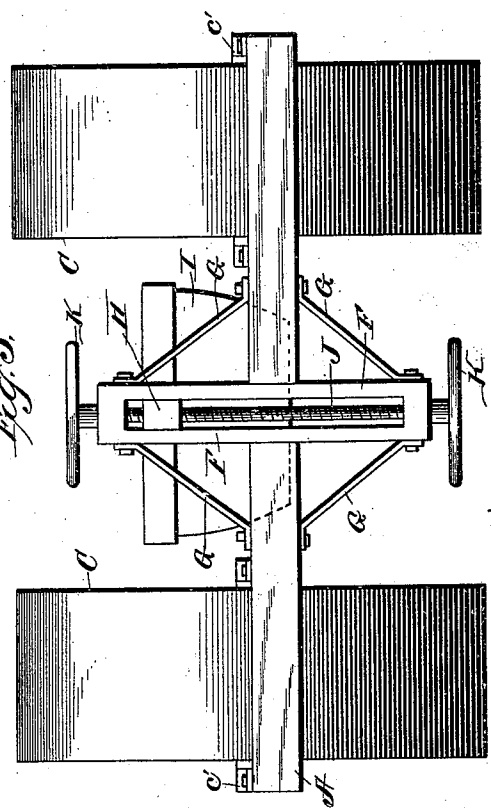


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIE HICKMAN, OF CHERRY CAMP, WEST VIRGINIA.

LIFE BOAT AND RAFT.

SPECIFICATION forming part of Letters Patent No. 473,224, dated April 19, 1892.

Application filed November 2, 1891. Serial No. 410,634. (No model.)

To all whom it may concern:

Be it known that I, WILLIE HICKMAN, a citizen of the United States, residing at Cherry Camp, in the county of Harrison and State of West Virginia, have invented a new and useful Life Boat and Raft, of which the following is a specification.

This invention relates to life boats and rafts; and it has for its object to provide a device of this character which shall be so constructed that the same can be operated or propelled by any suitable mechanism, and at the same time to provide a life-boat and propelling and supporting raft which cannot possibly be sunk and a life-boat that is so supported and hung within said raft that the same always assumes an upright position whether the raft is cap-sized or completely turned over, and also to provide in connection with the supporting and propelling raft a device for raising and lowering the body of the boat carried by said raft, so that the same may be adjusted according to the load carried thereby.

With these and other objects in view, which will be readily apparent as the nature of the invention is understood, the same consists in a buoyant and propelling raft and a loosely-supported life-boat carried thereby and constructed and arranged in the novel manner hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a top plan view of a life boat and raft constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is an end view; Fig. 4, a detail transverse section through the vertically-adjustable boat raising and lowering block and the guide and operating-screw therefor.

Referring to the accompanying drawings, A represents a rectangular and suitably-braced frame constructed of suitable material and in a substantial manner to withstand the power of the water and to support and carry the various parts comprising the apparatus. Longitudinally secured within said rectangular frame and to the end bars of the same are the parallel bars B, spaced a sufficient distance from the side bars of said rectangular frame to accommodate the series of float cylinders or wheels C. The said cylinders or

wheels are hollow and perfectly water-tight in order that the same will readily float upon the water and support the rectangular frame, said wheels or cylinders being mounted upon shafts *c*, journaled in bearings *c'*, formed or located upon the top of the side bars of said rectangular frame and the intermediate longitudinally-disposed bars B. The said cylinders or wheels are further provided upon their peripheries with a series of spaced blades D, which are designed to grasp the water and propel the raft, any suitable means—such as levers and cranks or other devices—being used to rotate said wheels or cylinders and propel the craft. Continuous bands or tires E encircle the top of the radially-extending blades of each cylinder or wheel, and besides strengthening said blades also serve as wheels in case the apparatus runs on a sand-bar or in shoal water, and thus permits the apparatus to be moved along. Upon each end bar of said rectangular frame A are located the guide-cleats F, suitably supported and secured thereon by means of the braces G and other securing devices, and said cleats are provided with the vertical longitudinal grooves *f*, within which are designed to travel the sliding blocks H, provided with the laterally-projecting tongues *h*, that are designed to work within said groove and with the inwardly-projecting pivot-pin *h'*, that supports the centrally-located life-boat I, pivotally supported from each end upon the inwardly-projecting pivot-pins *h'* of each vertically-adjustable block H. The said blocks are further provided with threaded perforations *h²*, that are adapted to receive the screw J, passing therethrough, and secured at its lower end below the lower extremities of said guide-pin, and is provided at its upper end with a hand-wheel K, by means of which each of the sliding supporting-blocks may be raised or lowered, according to the load that is placed within the centrally-located and pivotally-supported life-boat to always keep the same as far as practicable above the water. The said life-boat I is provided with a series of slots or openings *i*, which allows the water which may be thrown into the boat to run out, and thus always keep the interior of the boat free from water. The said boat

may be entirely inclosed and constructed in any desired shape, as may also the side floats supporting the raft carrying the same without materially altering or departing from my invention.

It can be readily seen from the foregoing that the position of the boat always remains the same no matter what position the raft may assume, and that the same may also be adjusted according to the load contained therein.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an open life boat and raft, the combination, with a float-supported frame, of a life-boat provided with a series of water-escape slits or openings and pivotally and adjustably suspended within said frame, substantially as set forth.

2. In a life boat and raft, the combination of a float-supported frame, a life-boat pivotally suspended within said frame, and means for vertically adjusting said life-boat in relation to said frame, substantially as set forth.

3. In a life boat and raft, the combination of a rectangular frame, a series of hollow cylinder or float-wheels journaled in said frame and provided with a series of radially-extending blades, means for propelling said wheels, and a life-boat pivotally suspended within said frame and between said wheels, substantially as set forth.

4. In a life boat and raft, the combination of a rectangular frame, a series of hollow cylinders or float-wheels journaled in said frame and provided with a series of radially-extending blades, continuous tires or bands encir-

cling said blades, a life-boat pivotally suspended within said frame and between said wheels, and means for propelling said wheels, substantially as set forth.

5. In a life boat and raft, the combination of a float-supported frame, guide-cleats secured centrally to each end of said frame and provided with vertical longitudinal guide-grooves, a sliding block provided with laterally-projecting tongues adapted to engage said guide-grooves, an inwardly-projecting pivot pin or lug and a longitudinal threaded perforation, an adjusting-screw engaging the threaded perforation of said sliding block and provided with a hand-wheel for operating the same, and a life-boat pivotally suspended upon said pivot pins or lugs at each end of the frame, substantially as set forth.

6. In a life boat and raft, the combination, with a rectangular frame, of a series of hollow cylinders or float-wheels journaled in said frame and provided with a series of radially-extending blades, means for propelling said wheels, guide-cleats secured centrally to each end of said frame, sliding blocks vertically adjustable in said guide-cleats and provided with inwardly-projecting pivot pins or lugs, and a life-boat pivotally suspended upon said pivot-pins between said wheels and provided with a series of water-escape slits or openings, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIE HICKMAN.

Witnesses:

DANIEL T. DAVIS,
EMANUEL U. CURTIS.