

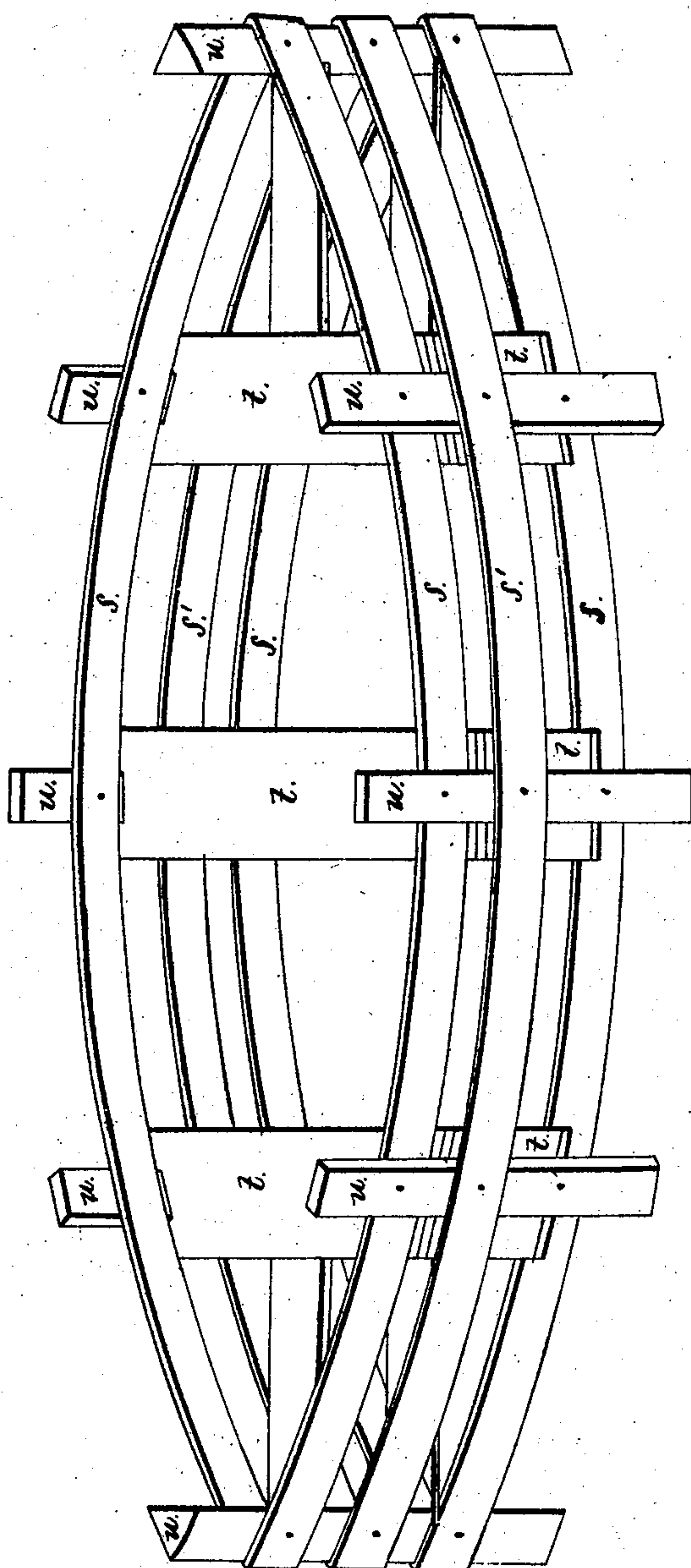
Sheet 1. 2 Sheets.

L. F. Frazee.
Life Boat.

N^o 10,266.

Patented Nov. 22, 1853.

Fig. 1.



Sheet 22. Sheets.

L. F. Frazee.
Life Boat.

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Fig. 2.

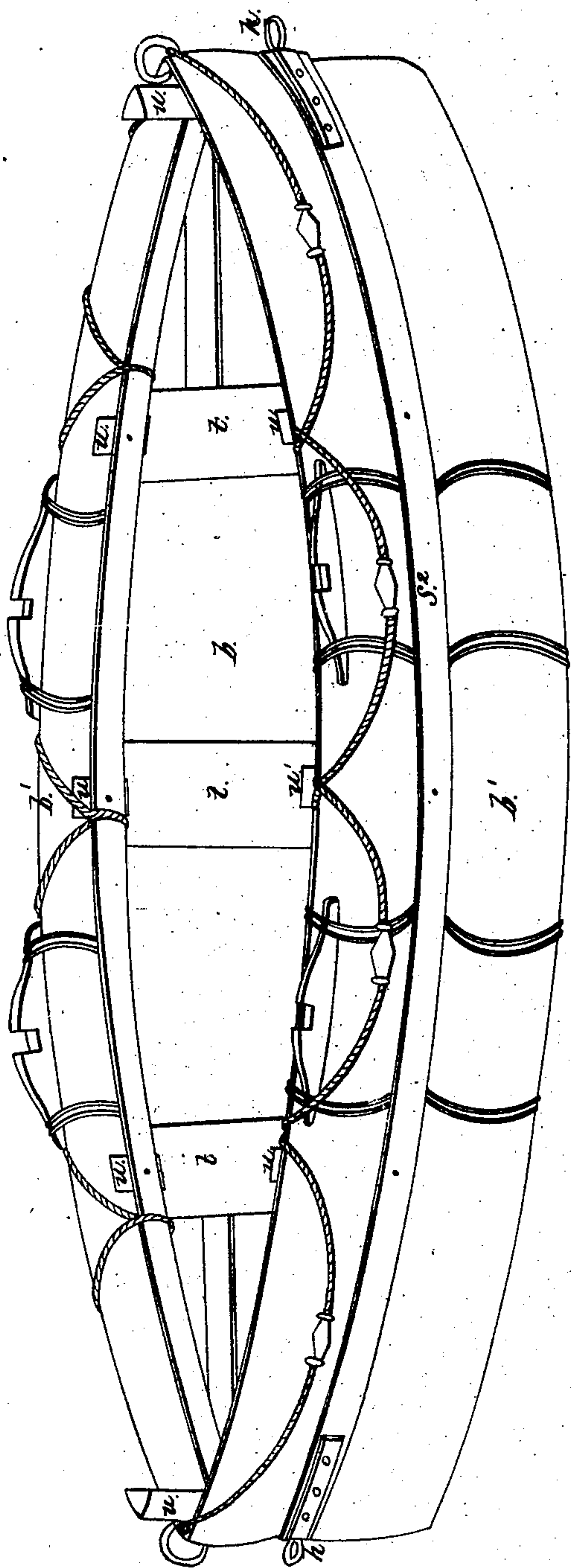
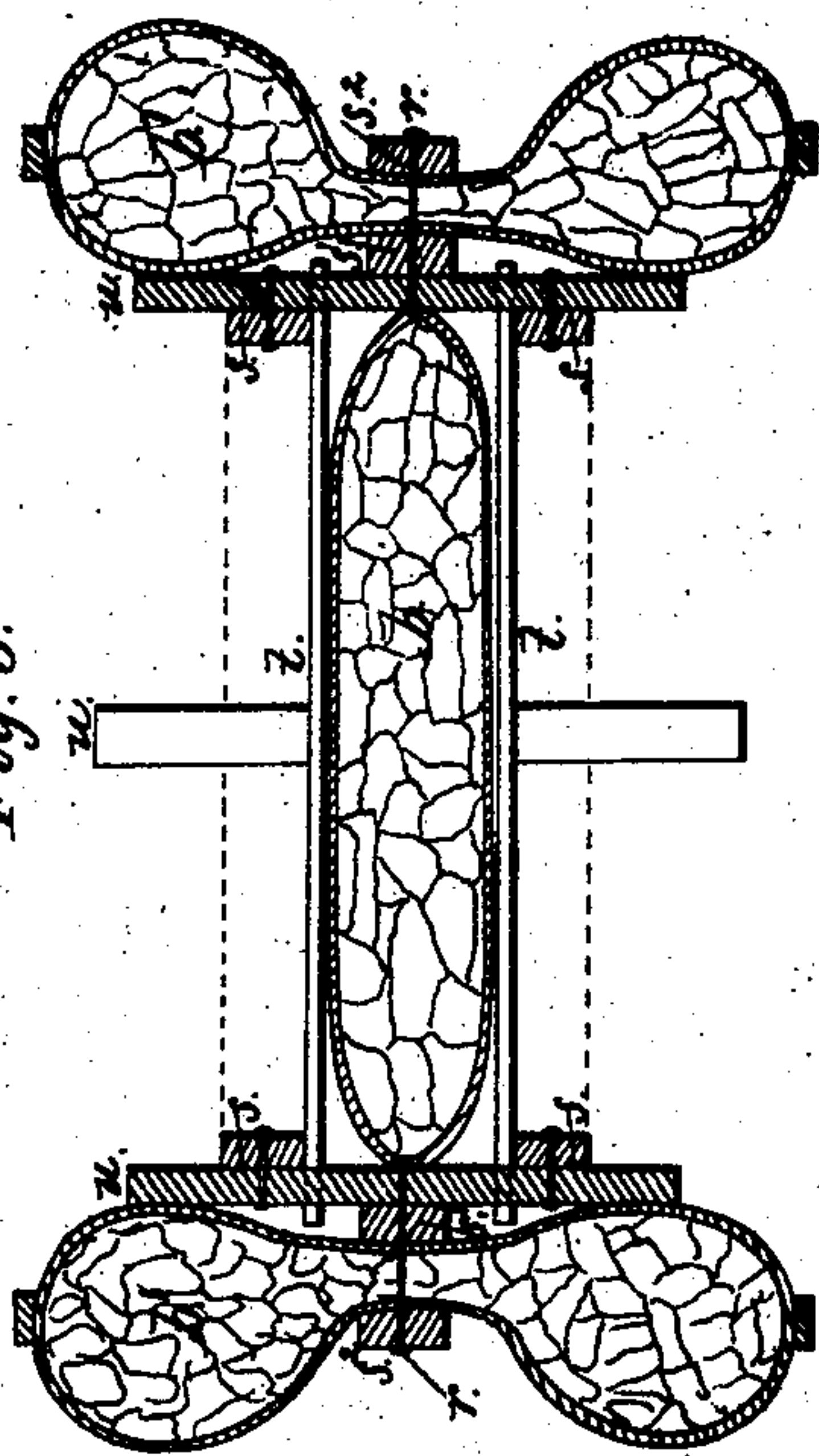


Fig. 3.



UNITED STATES PATENT OFFICE.

LAWRENCE F. FRAZEE, OF NEW BRUNSWICK, NEW JERSEY.

LIFE-BOAT.

Specification of Letters Patent No. 10,266, dated November 22, 1853.

To all whom it may concern:

Be it known that I, LAWRENCE F. FRAZEE, of the city of New Brunswick, county of Middlesex, State of New Jersey, have invented certain new and useful improvements in that class of life-boats which derive their buoyancy from cork or that class which is always right side up, and that the following specification, taken in connection with the drawings, is a full and fair description thereof.

In the drawings, Figure 1, is a perspective view of the frame thereof with the floats or balsas and the outside slats removed. Fig. 2 is a perspective view of the life float complete and Fig. 3 is a cross section through the center of the complete article.

The object of my invention is to provide a float for passengers, so that their lives may be saved in case of accident to either sailing vessels or to those propelled by steam, and in so doing it appeared to me that the article should possess several distinct qualities.

In the first place it must not be liable to accident rendering it unserviceable while in use, neither must it be fragile, or easily damaged by mischievous persons. In the second place it must be light in proportion to the number of persons that it will support so that it may easily be thrown overboard and got ready for use. Thirdly it must be so shaped that it will not matter how thrown into the water be always right side up ready to receive passengers or freight. Fourthly it must be so shaped and constructed that it may be propelled through the water with some degree of ease so that passengers may reach a distant shore and not a mere unmanageable raft, drifting at the mercy of winds and waves. And lastly and this requisite is indispensable it must be inexpensive, that is to say of small cost in proportion to the number of passengers that it will support for if this latter quality be wanting it will never come into use no matter how great are its other advantages.

So much ingenuity has been exercised in the construction of life boats, floats, buoys and life preservers, that the ground has been fully occupied as far as principles or substantive parts of invention are concerned, I have therefore found it necessary to make use of many parts invented by those who have preceded me and all that I can claim

to have done is so to unite, combine and modify the ideas of my predecessors that there shall result a harmonious whole possessing all the requisites which appear to me essential.

The nature of my invention therefore consists in combining together buoyant vessels properly shaped and arranged by means of a frame constructed substantially as hereinafter described, such vessels being made of canvas, india rubber or oil cloth stuffed with cork or its equivalent. This combination constituting as a whole a life float, which is inexpensive, not liable to accident, capable of propulsion, light, and always right side up no matter in what manner it is thrown into the water.

In order to construct my float I procure, in the first place certain slats of hickory or other strong and elastic wood a little longer than the whole length of the finished article, and also certain other pieces of light, tough wood shaped substantially as shown in the drawings. I next procure three balsas or floats made and stuffed as before described and shaped substantially as represented in the drawings—one of these balsas constitutes the bottom of my boat and the other two her sides. The former is secured within a frame made of the slats and pieces above referred to while the two latter are fastened to its sides chiefly by means of the external slats, rivets being passed through the internal slats through the side balsas and through the external slats.

In the drawings *u u u* represent the uprights two of which make the stem and stern posts, the intermediate ones being more or less in number according to the size of the finished float. On the inside of the intermediate uprights are secured by rivets or otherwise the slats *s s s*, they being also secured outside of the stem and stern posts. The slats *s' s'* are secured outside of all the uprights, and from upright to upright reach the transverse pieces *t t t* notched over the uprights and resting upon the slats. Two other pieces of plank or grating are firmly secured to the forward and after transverse pieces and to the stem and stern.

Between the transverse pieces and within the slats is located the balsa *b* confined by these pieces, which at the same time stiffen it both transversely and longitudinally. The planks or grating giving additional strength at bow and stern, and affording

firm footing for a bowsman or boat-steerer. Two other balsas $b' b'$ whose section is somewhat like that of an hour glass are now applied outside of the slats and outside of them are located two other slats $s^2 s^2$; rivets $r r$ are then passed through the slats and balsas and their ends riveted up. To the forward and after ends of $s^2 s^2$ are applied wooden or metallic breast hooks $h h$ which attach the outside slats at their ends, each to each in a durable manner and also confine securely the ends of the hour glass, outside balsas. These latter are also sewed to each other at their ends.

The whole affair is in shape something like two skiffs attached by their bottoms and will in whatever way it is thrown into the water be always capable of receiving freight and passengers. The whole moreover is light, strong elastic and basket like and will sustain violent shocks without receiving material injury. The several parts of the frame are securely attached to each other while they at the same time sustain the balsas in their relative position; and the latter likewise protect the frame as fenders. Even the outside slat is protected by being located in the waist of the balsa. The outer balsas may be additionally secured by lashings, and to them are lashed row locks, and life lines with floats thereon serving to keep them on the surface of the water.

The apparatus may without injury be thrown into the water from the hurricane deck of a steamer or may be tossed in the surf or driven against rocks without receiv-

ing material damage as its elasticity and want of weight prevents any serious concussion.

Now I am aware that bags of textile material filled with cork or varnished rushes or their equivalents are not new as floats, neither are rafts made of such balsas a new device. Neither is it new to put the bottom of a boat half way between the bottom of the sides and the top thereof—as that feature is well described as applied to a life raft in an early volume of the *Transactions of the Society of Arts*, and its application to a metallic boat has been lately patented. All these points I know to be old and I claim none of them simply as of my invention—but

What I do claim as of my own invention and desire to be secured to me by Letters Patent of the United States is—

The combination of the balsas shaped and arranged with respect to each other substantially as herein described, with the frame which keeps them in shape and position and is itself protected by the balsas, said frame being constructed substantially as herein described and the whole constituting a life float having the qualities herein set forth.

In witness whereof I have hereunto subscribed my name on this 5th day of Novr., A. D. 1853.

LAWRENCE F. FRAZEE.

In presence of—

JOSEPH P. BARNES,
JOHN M. WEEKS.