

No. 804,095.

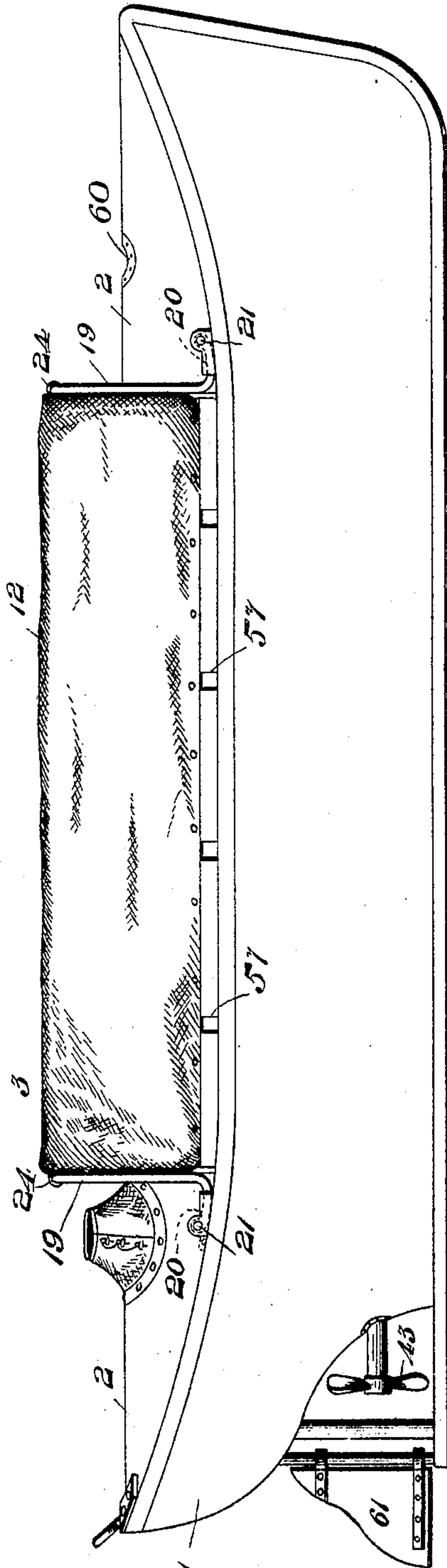
PATENTED NOV. 7, 1905.

F. W. BROWN.
LIFE BOAT.

APPLICATION FILED SEPT. 29, 1904.

4 SHEETS—SHEET 1.

Fig. 1.



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4 SHEETS—SHEET 2.

Fig. 2.

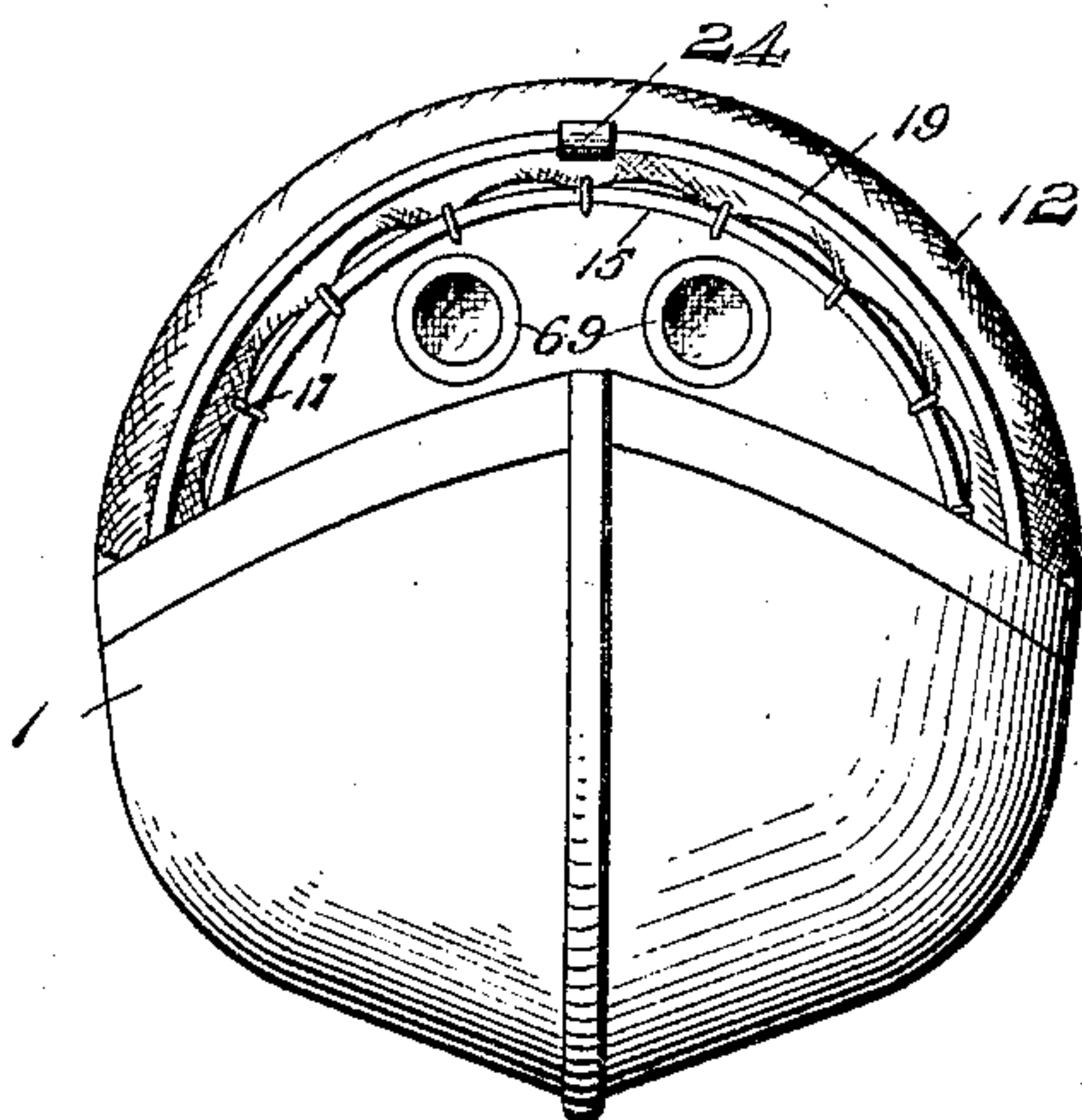


Fig. 4.

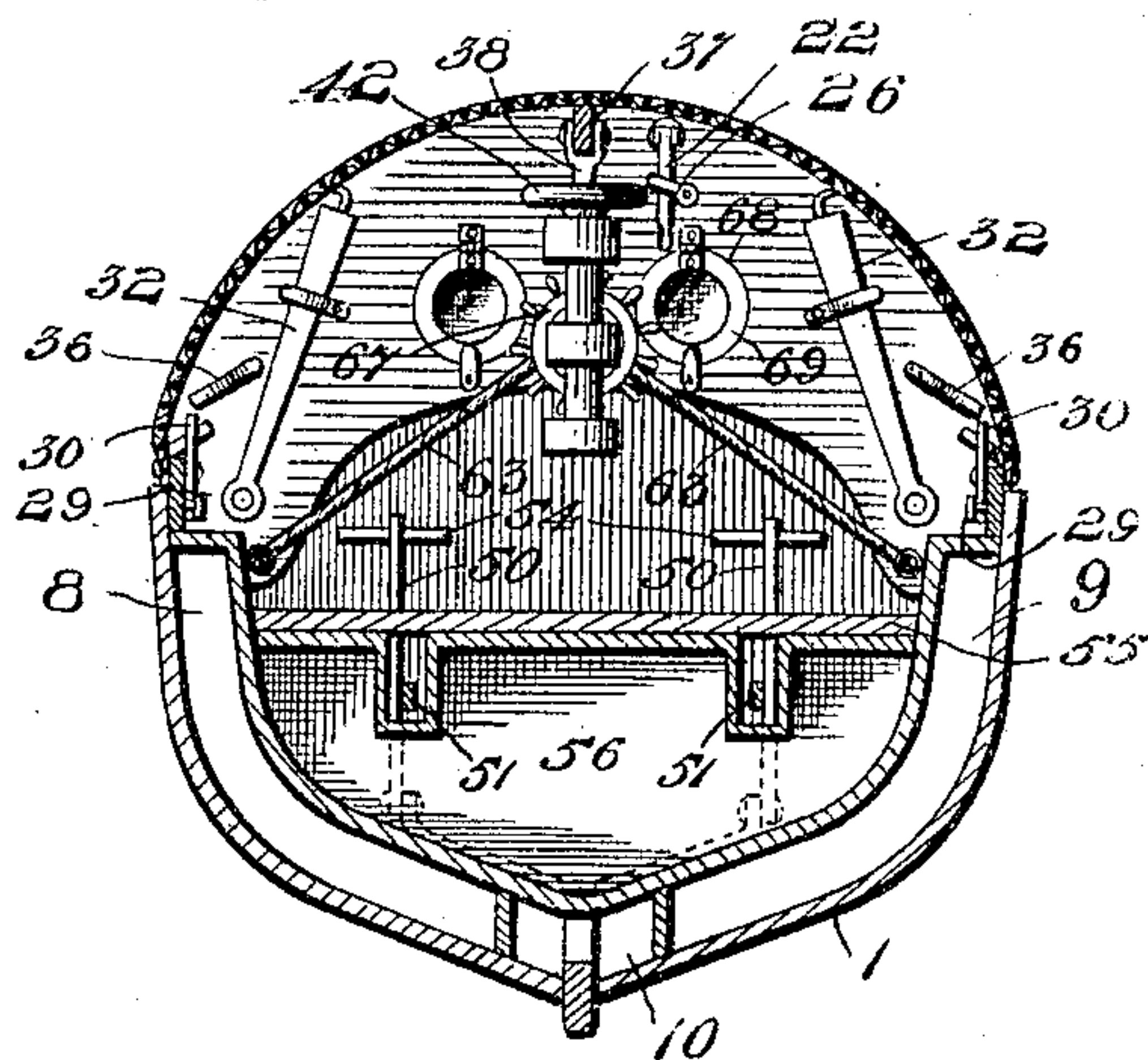


Fig. 5.

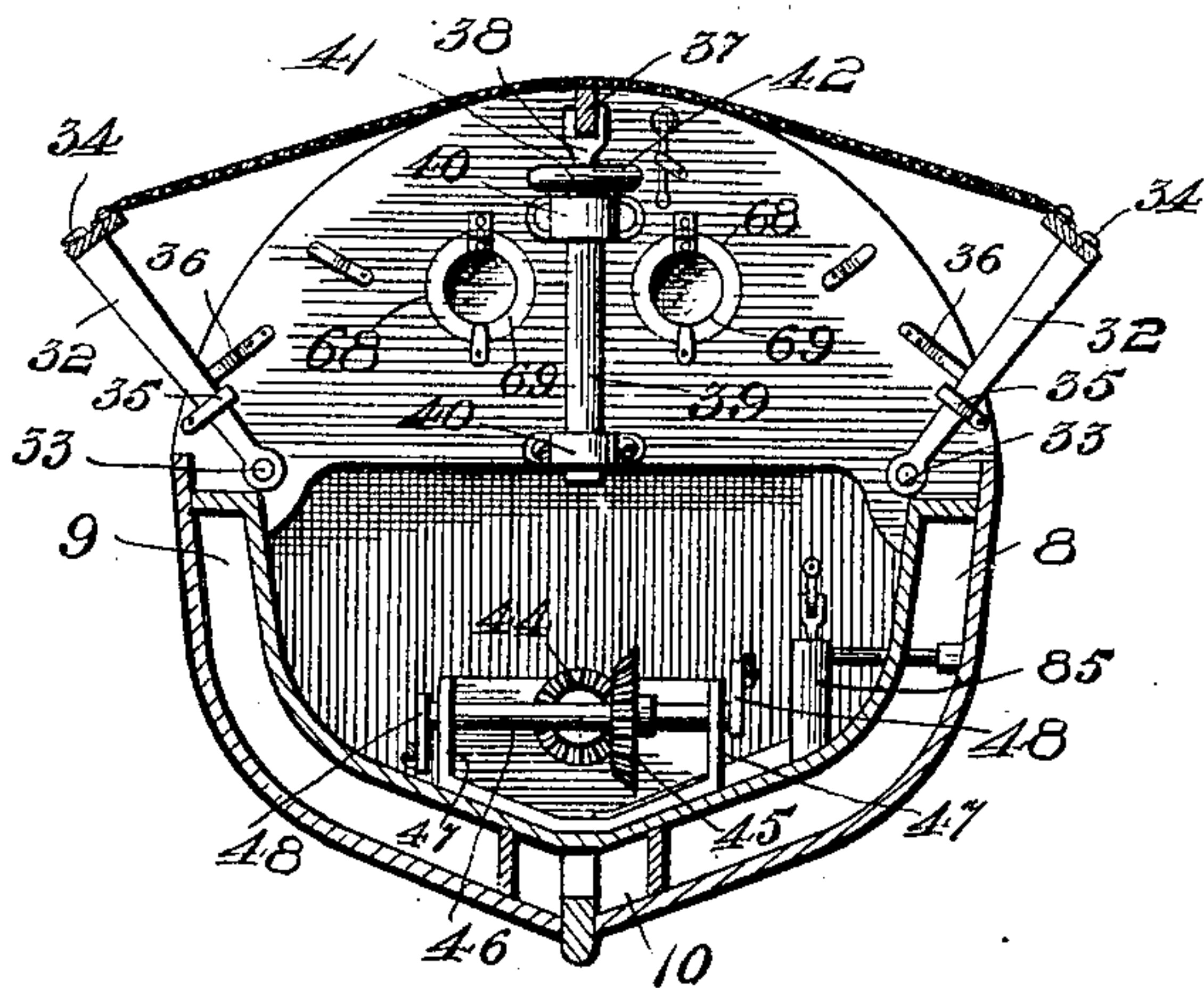
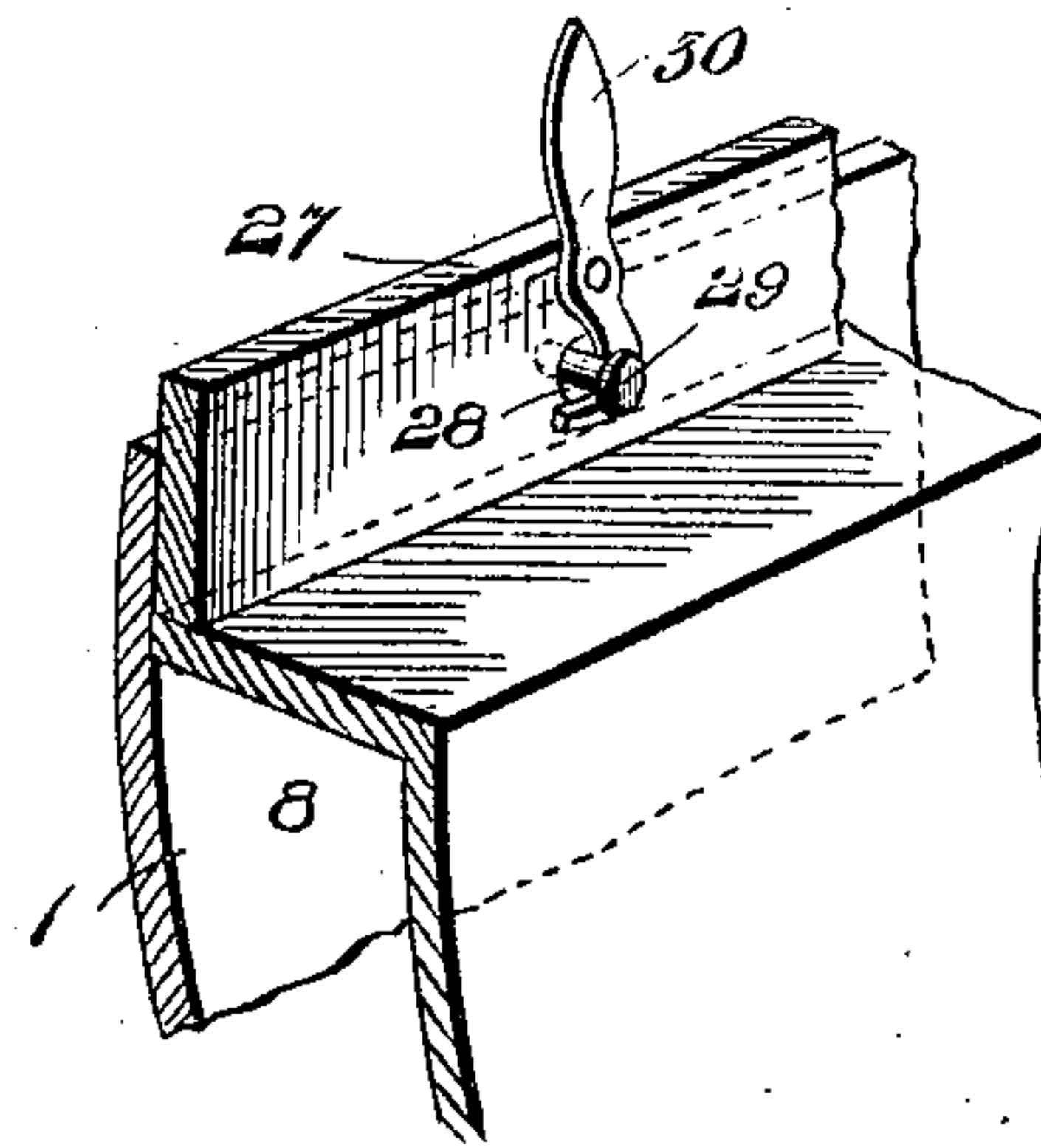


Fig. 8.



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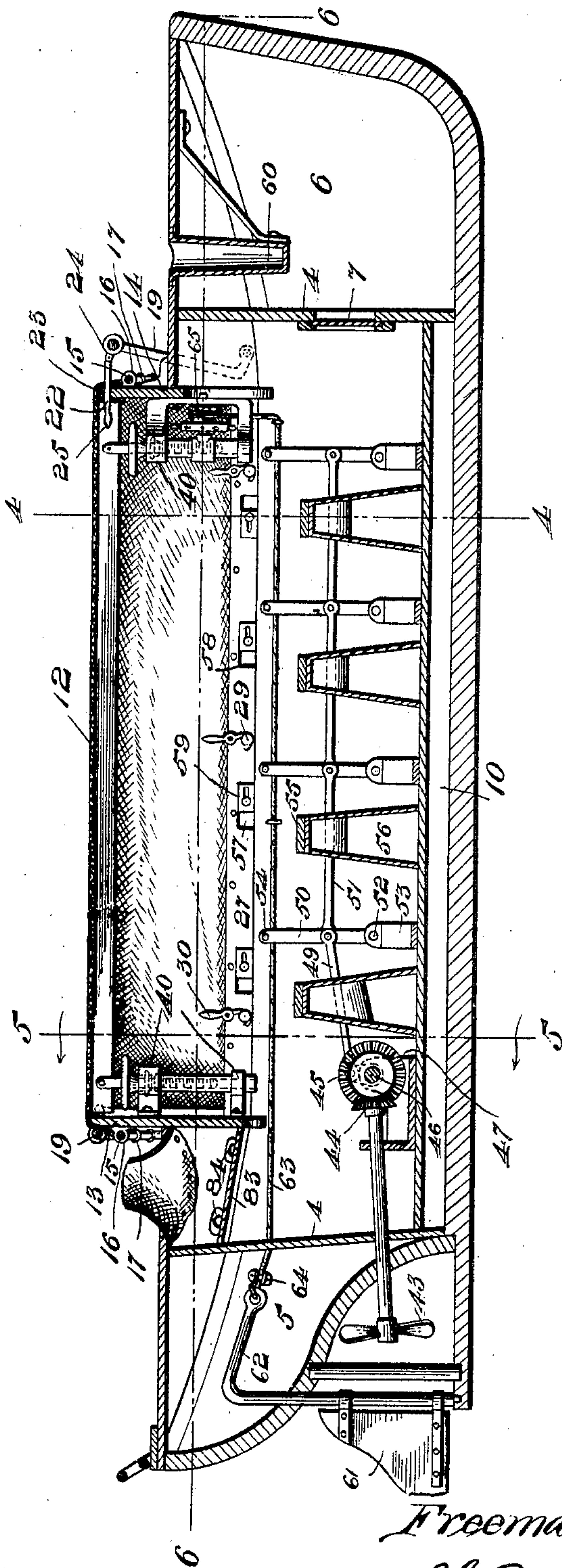
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4 SHEETS—SHEET 3.

Fig. 3.



Witnesses

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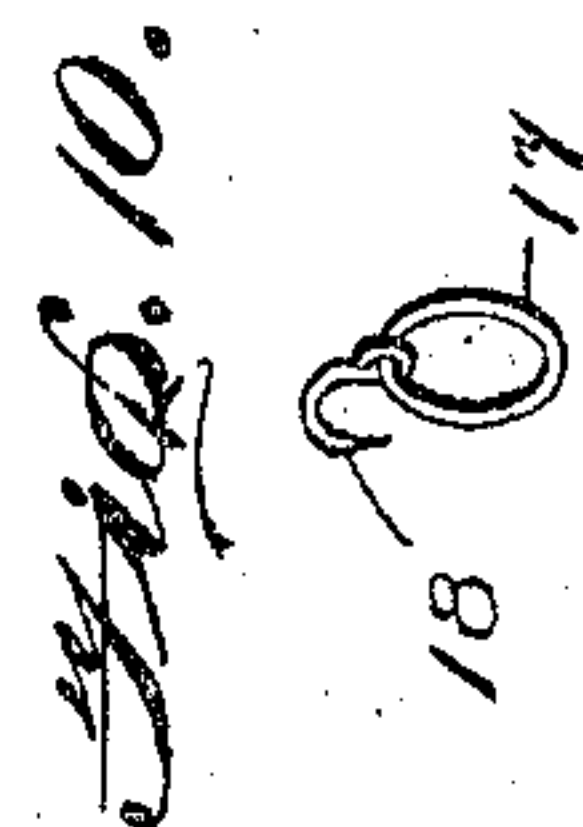
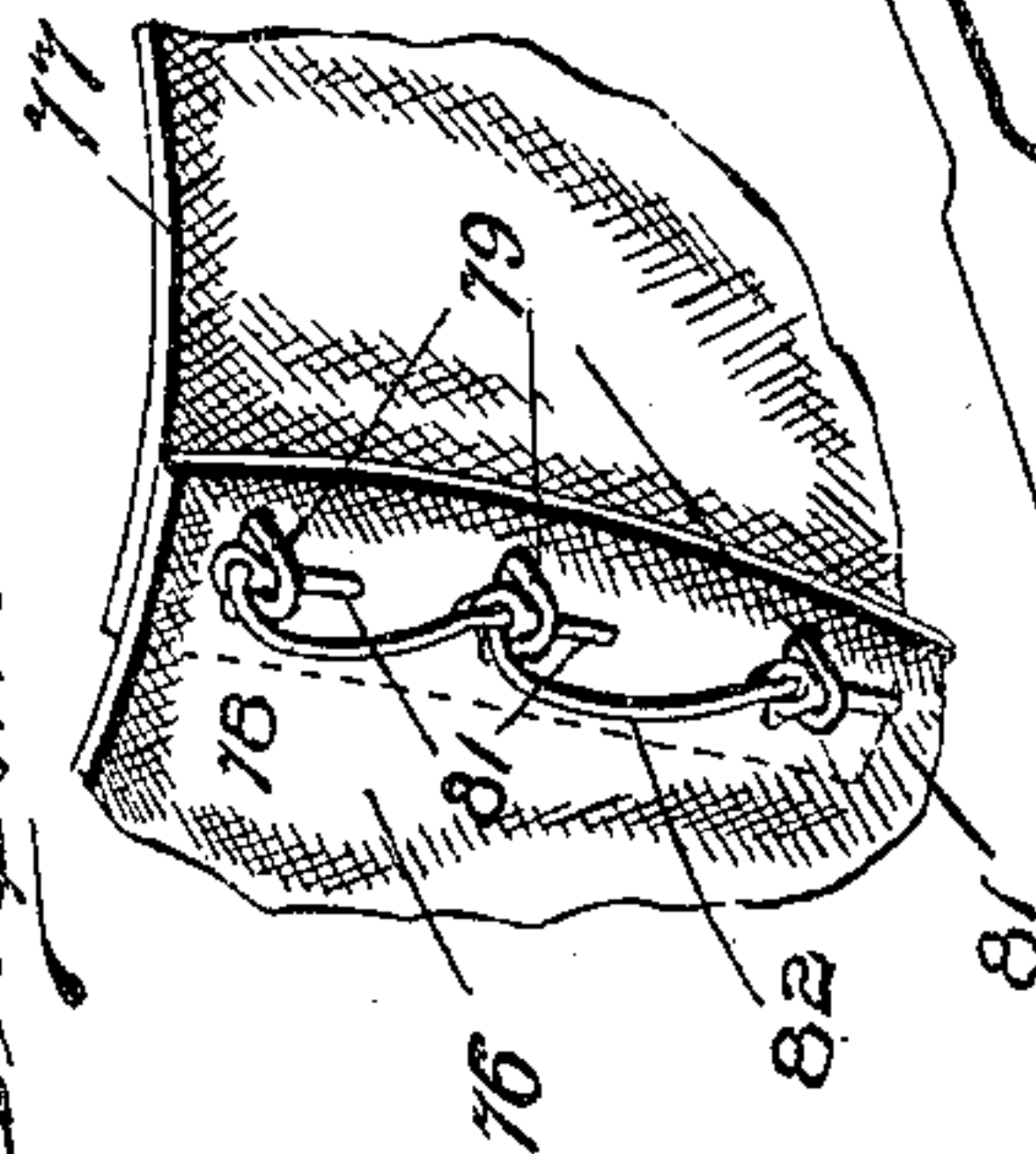
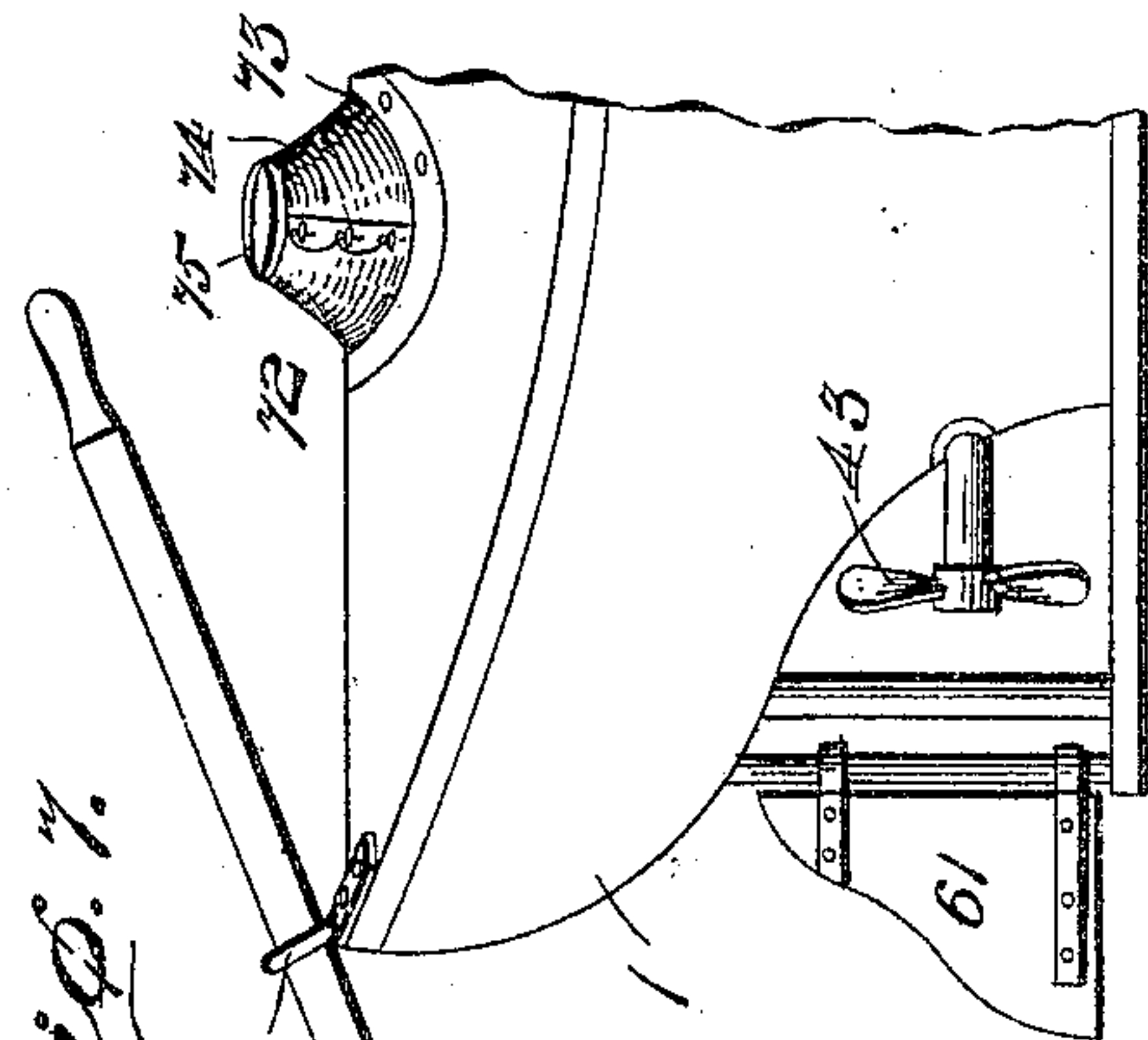
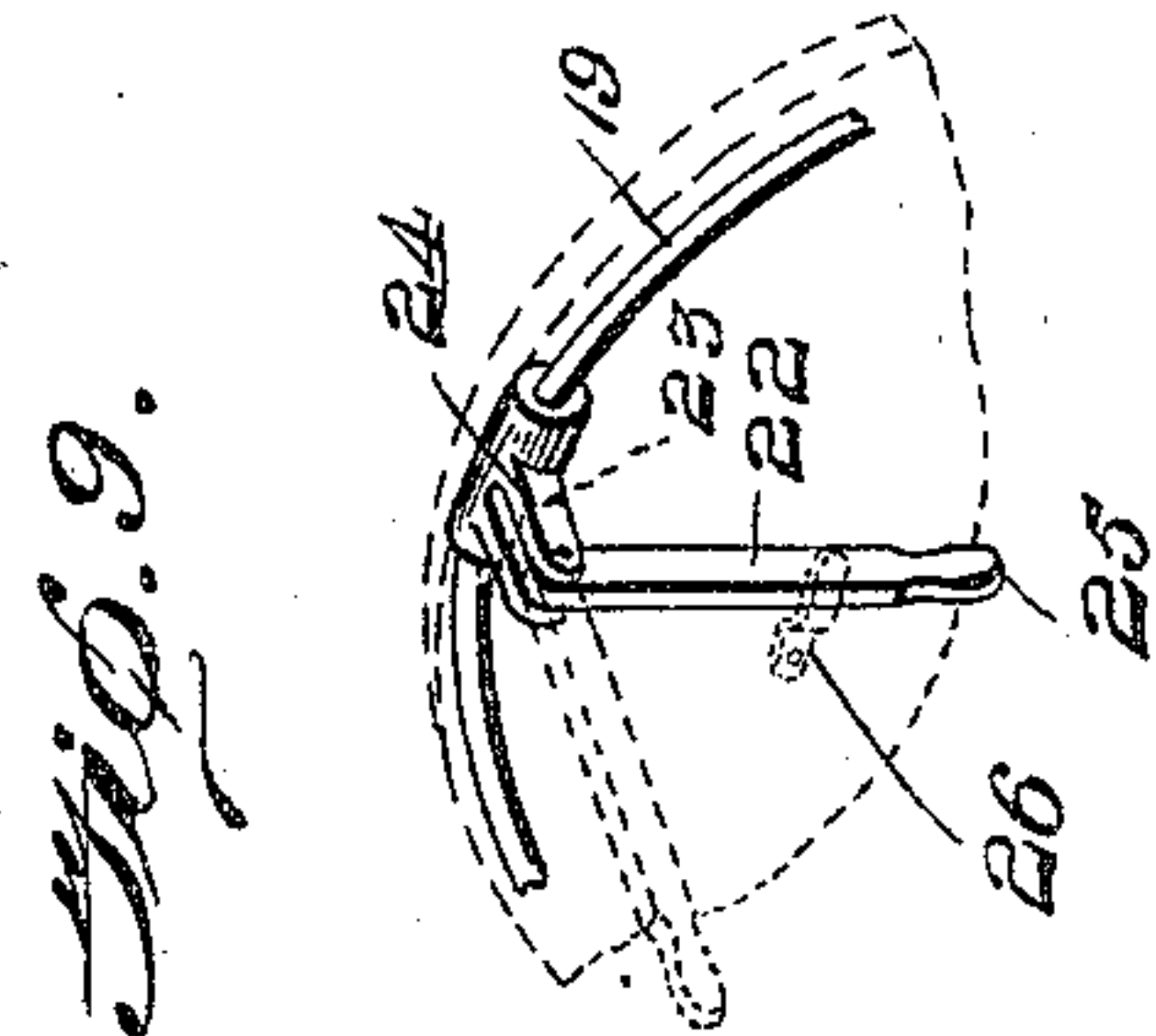
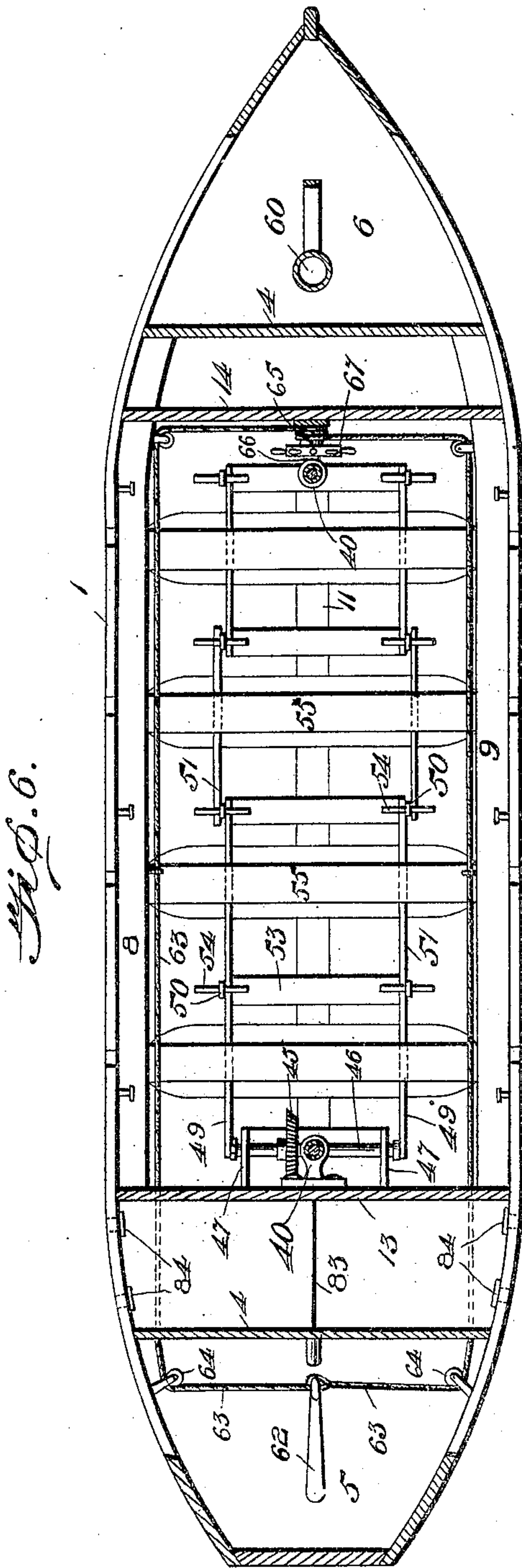
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4 SHEETS—SHEET 4.



Witnesses
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UNITED STATES PATENT OFFICE.

FREEMAN W. BROWN, OF TACOMA, WASHINGTON.

LIFE-BOAT.

No. 804,095.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed September 29, 1904. Serial No. 226,562.

To all whom it may concern:

Be it known that I, FREEMAN W. BROWN, a citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Life-Boats; and I do 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.

My invention relates to improvements in life-saving boats; and it consists in certain novel features of construction, combination, and arrangements of parts hereinafter fully described and claimed.

The object of my invention is to improve and simplify the construction and operation of boats of this character, and thereby render the same more durable, safe, and efficient.

The above and other objects, which will appear as the nature of my invention is better understood, I accomplish by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a boat constructed in accordance with my invention. Fig. 2 is a front end elevation of the same. Fig. 3 is a vertical longitudinal sectional view showing one of the water-guard clamps in its open position. Fig. 4 is a vertical transverse sectional view taken on the line 4 4 of Fig. 3, the water-guard being in its closed position. Fig. 5 is a similar sectional view taken on the line 5 5 of Fig. 3 and showing the water-guard in an elevated position to provide an awning for the boat. Fig. 6 is a horizontal sectional view taken on the line 6 6 of Fig. 3. Fig. 7 is a detail view of a portion of the stern of the boat with a steering-oar mounted thereon. Fig. 8 is a detail view of the fastening means for securing the side edges of the water-guard to the sides of the boat. Fig. 9 is a detail view of the fastener for the water-guard clamp. Fig. 10 is a detail view of one of the fasteners for attaching the flexible water-guard to the guides or running-bars of the same, and Fig. 11 is a detail view of the fastening means for the flexible cover of the cock-pit.

Referring to the drawings by numeral, 1 denotes the body or hull of the boat, which is provided at its ends with curved covers or decks 2 and at its center with an opening 3. Adjacent to each end of the boat are transversely-disposed bulkheads 4, which form end air-chambers 5 and 6. Said bulkheads

are provided with sliding water-tight doors 7 to permit the air-chambers to be used as storage-compartments when desired. Air-chambers 8 and 9 are also formed along each side of the boat, and between them in the bottom of the latter is a water-tank 10. Said water-tank when full serves as a ballast for the boat, and said side and end air-chambers are so disposed with relation thereto that the boat will right itself when capsized. Said water-tank may be divided into suitable compartments, and one or more covered closures 11 are provided for the purpose of filling said tank and to permit the removal of the contained water by means of a suction-pump. In order to prevent water from entering the boat, I provide a flexible guard 12, which is disposed longitudinally over the top opening 3 of the boat and is so mounted as to be connected to the side of the boat to close said opening or to be supported above said side to serve as an awning. To effect this mounting of the guard, I provide at the ends of the opening 3 transversely-disposed upright heads or plates 13 and 14, the upper edges of which are semicircular, as shown in Figs. 4 and 5 of the drawings. Upon the outer faces of said heads are semicircular guides or running-rods 15, which are spaced from said faces by brackets 16. Upon said guides are a plurality of sliding rings 17, provided with hooks 18, which are removably engaged with eyes or eyelets provided at suitable intervals in the ends of the flexible water-guard 12. By means of this construction it will be seen that the water-guard is held upon the curved edge of the head 14 and may be slid thereon by drawing its side edges up or down, as desired. In order to hold the guard firmly upon said head to render its ends wind and waterproof, I provide clamps 19, each of which is in the form of a semicircular bar or frame formed with right-angularly-bent ends 20, which are pivoted at 21 upon the upper sides of the deck 2, so that said frame or bar is permitted to swing toward and from the head, as shown in Fig. 3 of the drawings. To hold said clamps in their closed position, I provide each of them with an operating bar or lever 22, which projects through an opening 23 in the head and has its outer end connected to the center of the clamp by a pivoted link 24. The inner end of said bar or lever 22 is formed with a handle 25, by means of which it may be forced outwardly to swing the clamp to its

open position or drawn inwardly to cause the clamp to hold the end of the water-guard upon said head. When the clamp is in its closed position, the bar 22 is swung outwardly
 5 against the inner face of the head and is retained in that position by a pivoted button or catch 26. The side edges of the flexible water-guard are adapted to be secured to the sides or gunwales of the boat in order to provide a wind and water tight connection. As
 10 shown, I do this by securing to said side edges longitudinal strips 27, which are formed with openings 28, through which headed lugs or projections 29 upon the sides of the boat
 15 are adapted to project when the water-guard is in its closed position, as in Fig. 4 of the drawings. To hold said bar 27 in this position, pivoted catches 30 are provided upon the same and are adapted to engage said
 20 headed lugs, as clearly shown in Fig. 8 of the drawings.

When the sea is calm or when it is desired to use the craft as a pleasure-boat, the water-guard 12 is adjusted in the position shown in
 25 Fig. 5 of the drawings by disengaging some or all of the hooks 18 from its end and engaging the side strips 27 with the outer ends of swinging arms or levers 32, which are pivotally mounted at 33 upon said heads 13 and
 30 14. Said arms 32 are formed at their outer ends with hooks 34, which are adapted to engage the end openings 28 in said strips 27. These arms 32 are held in their extended position by pivoted buttons or catches 35 and
 35 springs 36 and when swung inwardly engage the inner faces of said heads and occupy but little space.

In order to support the center of the flexible guard 12 when used as an awning, and
 40 also to stretch the same when in its closed position, I provide a longitudinally-disposed ridge-bar 37, which is secured in the upper slotted ends of screw-threaded rods 38, mounted in tubes or cylinders 39, which are
 45 spaced from the inner faces of the heads 13 and 14 by brackets 40. In the uppermost brackets 40 are swiveled, as at 41, nuts or hand-wheels 42, which engage and operate said screw-rods 38. It will be seen that
 50 when said hand-wheels 42 are turned the rods 38, and hence the ridge-bar 37, will be raised or lowered, as desired.

The boat may be propelled in any desired manner. In the drawings I have shown a
 55 manually-operated screw-propeller 43, secured upon the outer end of a suitably-journaled shaft which has at its inner end a beveled pinion 44 to mesh with a gear 45 upon a transversely-disposed shaft 46, mounted in
 60 bearings 47. Upon said shaft 46 are two cranks 47, which are connected by pitmen 49 to hand-levers 50. Any desired number of these hand-levers may be provided and they are connected, as shown in the drawings,
 65 by links 51. The lower ends of said levers

are pivoted at 52 in the turned-up ends of plates 53, secured upon the bottom or floor of the boat, and the upper ends of said levers are provided with cross-bars or handles 54, by means of which they are operated by persons upon transversely-disposed seats 55,
 70 beneath which are formed air-chambers 56. In order to permit the boat to be propelled by means of oars, I provide in the sides or gunwales of the boat openings 57 and in the
 75 cross-bars 27 slots or openings 58, which are adapted to register with said openings 57. The openings 57 when not in use are closed by sliding plates 59 to prevent water from entering the boat. To permit a sail to be used
 80 upon the boat, I provide in the front or bow deck 2 a mast-socket 60.

In order to steer the boat, a rudder 61 is provided and has its upper end or arm 62 connected to the rear ends of ropes or cables
 85 63, which are passed over suitable guide-pulleys 64 and have their forward ends wound in opposite directions upon a drum 65, secured upon a shaft 66, which is journaled between the head 14 and the tube 39. Upon
 90 said shaft is also secured a hand-wheel 67, by means of which the rudder may be operated, as will be understood.

In order to admit light into the interior of the boat when the water-guard is in its closed
 95 position, I provide in each of the heads 13 and 14 openings 68, which are closed by water-proof glass doors 69.

When the boat is used in a heavy surf and cannot be steered by the rudder 61, I employ
 100 an oar 70, which is mounted in a suitable oar-lock 71 upon the stern of the boat and operated by a person who stands in a cock-pit 72, provided at the stern of the boat in rear of the head 13. The person enters said pit
 105 through a circular opening 73, formed in its top and partially closed by a flexible covering 74, which is secured about the body of the person to prevent water from entering the pit. Said flexible covering is in the form
 110 of a tube slit longitudinally and having its lower end secured around the edge of the opening 73 and its upper end provided with an elastic ring 75, which is adapted to fit snugly around the body of the person below
 115 his arms. The slit portions 76 and 77 of this covering are connected by a fastening means 78, which comprises a series of staples 79, secured upon said portion 77, and a series of
 120 slots or elongated eyes 80, provided in said portion 76 and adapted to engage said staples 79, as shown in Fig. 11 of the drawings. These staples and eyes are held in engagement by a series of sliding pins 81, which are
 125 connected by cords or flexible connections 82, so that they will all be operated simultaneously to permit the covering 74 to be quickly opened to allow the person to free himself from the same in the time of danger. To permit
 130 any water which may enter the cock-pit to

drain out of the same, the floor 83 of the pit is inclined and suitable outlet-valves 84 are provided at its lowermost point. In order to remove any water which may enter the interior of the boat, a suitable pump 85 is mounted in the same, as shown.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. A boat having a water-guard mounted centrally over its top, means for removably securing the sides of said guard to the sides of the boat to close the top of the latter, and means for supporting the sides of said guard above the sides of the boat to cause said guard to serve as an awning.

2. A boat having a folding water-guard which folds longitudinally and is mounted centrally over the top of the same, means for securing the side edges of said guard to the sides of the boat, and means for stretching said guard.

3. A boat having a central longitudinally-disposed flexible water-guard provided with suitably-mounted ends, means for securing the sides of said guard upon the sides of said boat, and means for clamping the slidably-mounted ends of said guard.

4. A boat having a central longitudinally-disposed flexible water-guard provided with slidably-mounted ends, and means for clamping said slidably-mounted ends of said guard against movement.

5. A boat having transversely-disposed heads at the ends of its top opening, curved guides upon said heads, a flexible water-guard slidably mounted upon said guides, and swinging clamps for holding said guard against movement, substantially as described.

6. A boat having transversely-disposed heads at the ends of its top opening, curved guides upon said heads, a flexible water-guard slidably mounted upon said guides, swinging frames for clamping said guard upon said heads, and fasteners for said clamps, substantially as described.

7. A boat having a folding water-guard mounted centrally over its top, and swinging fasteners for securing the sides of said guard upon the sides of the boat to close the top of the latter.

8. A boat having heads at the ends of its top opening, a centrally-disposed longitudinal bar mounted between said heads, a water-guard upon said bar, and means for adjusting said bar, substantially as described.

9. A boat having heads at the ends of its top opening, a centrally-disposed longitudinal bar mounted between said heads, a water-guard upon said bar, and screw-rods and nuts for adjusting said bar, substantially as described.

10. A boat having heads at the ends of its top opening, a centrally-disposed longitudinal bar mounted between said heads, a water-guard upon said bar, means for removably securing the outer side edges of said guard upon the sides of the boat, and means for adjusting said bar vertically to stretch said guard, substantially as described.

11. A boat having a folding water-guard mounted centrally over its top, and swinging arms for supporting the sides of said guard in an extended position to permit said guard to serve as an awning, substantially as described.

12. A boat having a flexible water-guard mounted centrally over its top, swinging arms for supporting the sides of said guard in extended position to permit said guard to serve as an awning, and means for fastening said arms against movement.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FREEMAN W. BROWN.

Witnesses:

A. F. EASTMAN,

F. W. WHITNEY.