No. 753,425. PATENTED MAR. 1, 1904.

S. D. NOEL.

METAL BOAT.

APPLICATION FILED MAY 5, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

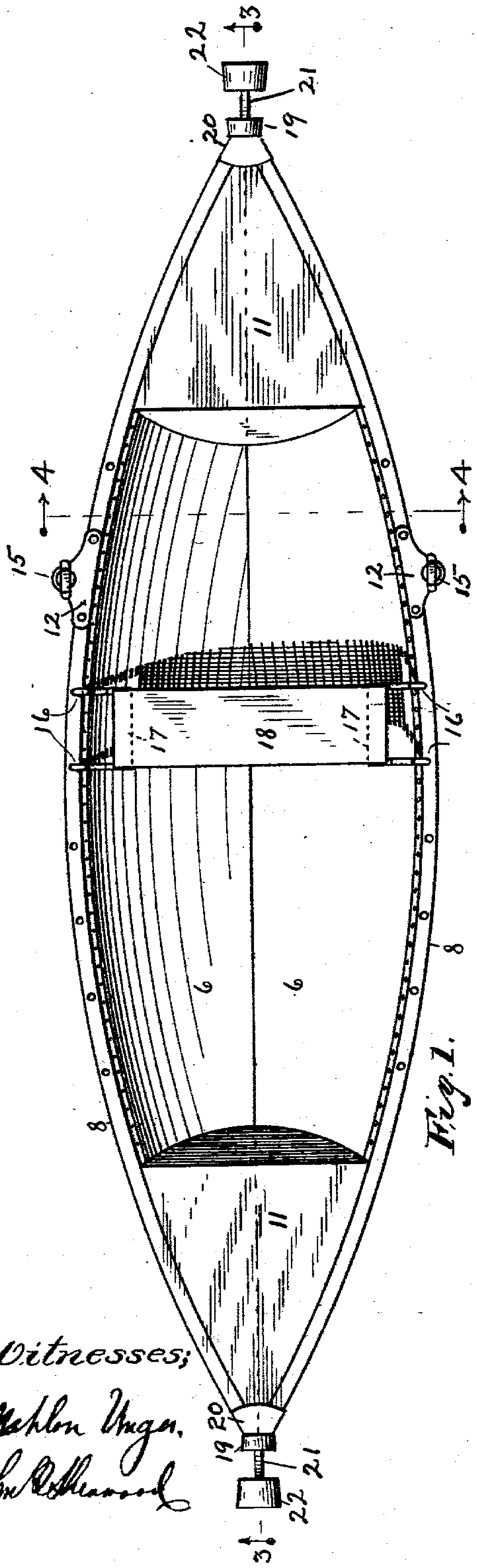

Fig. 1.

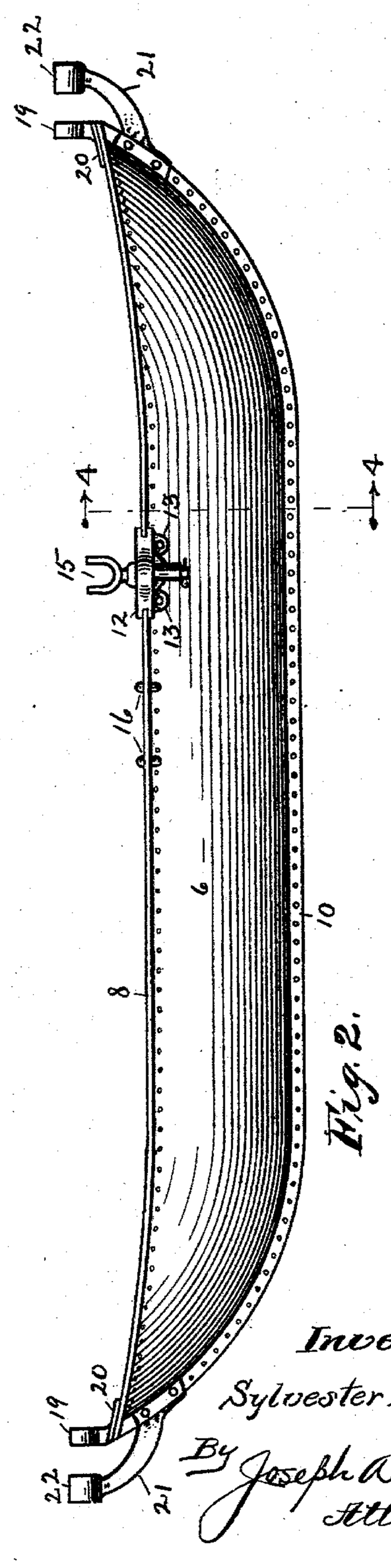

Fig. 2.

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John A. Hammond

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NO MODEL. 2 SHEETS—SHEET 2.

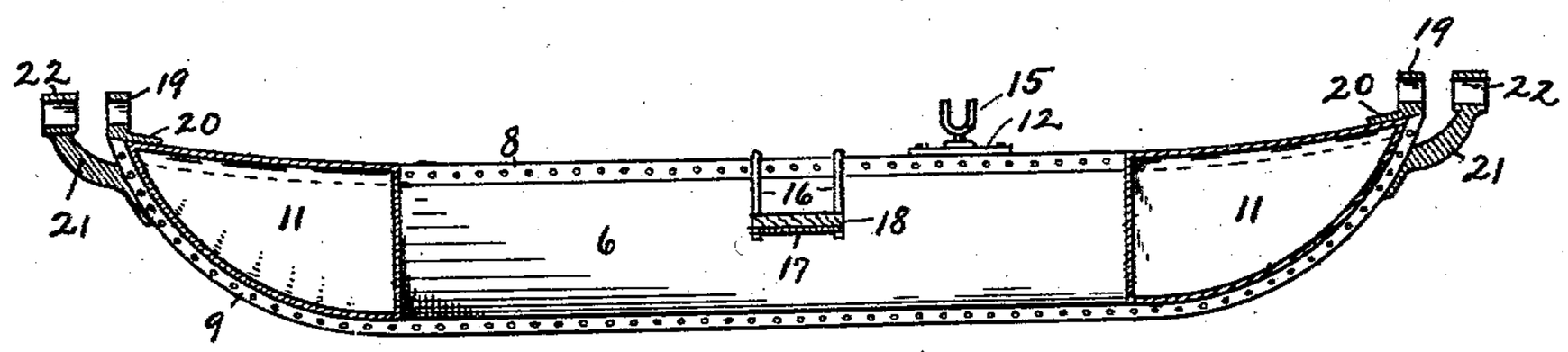

Fig. 3.

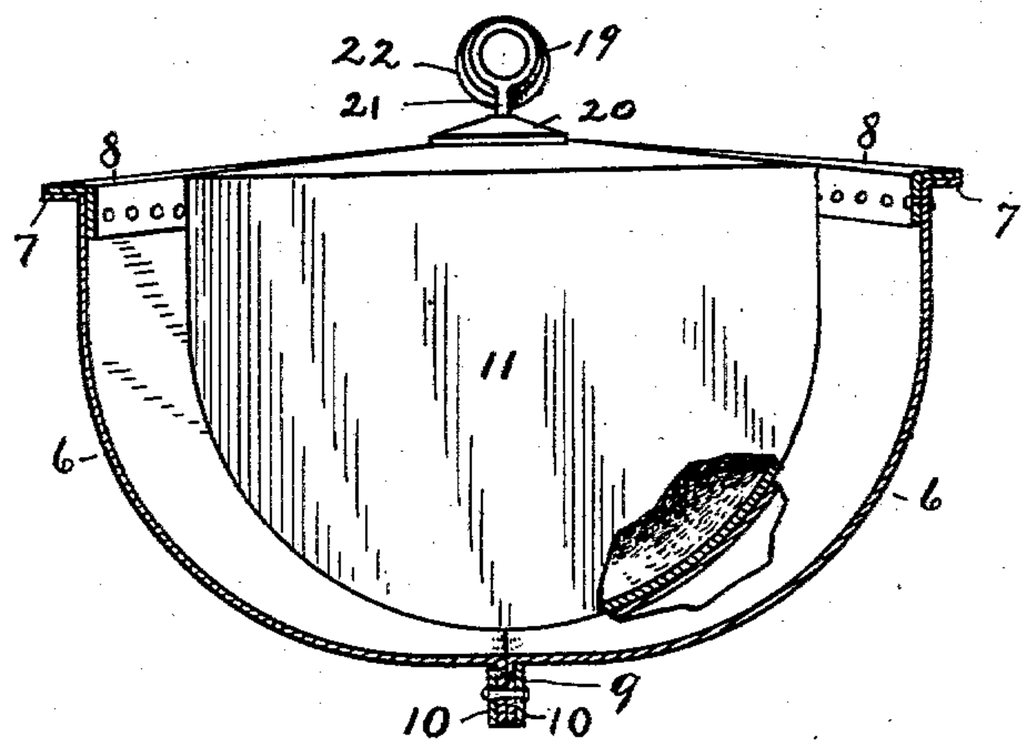

Fig. 4.

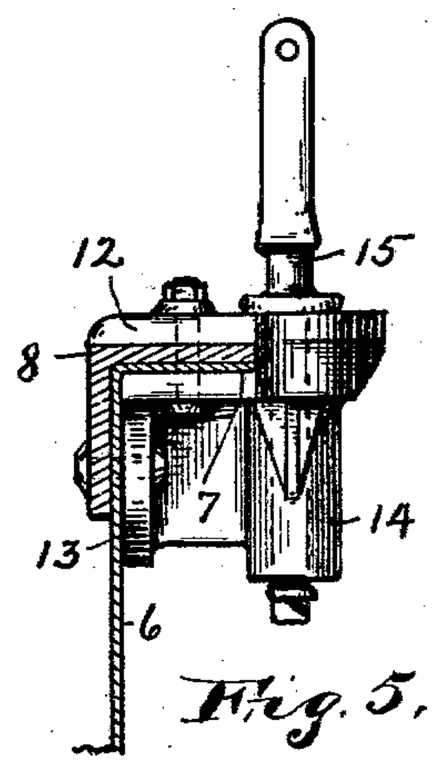

Fig. 5.

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No. 753,425. Patented March 1, 1904.

UNITED STATES PATENT OFFICE.

SYLVESTER D. NOEL, OF INDIANAPOLIS, INDIANA.

METAL BOAT.

SPECIFICATION forming part of Letters Patent No. 753,425, dated March 1, 1904.

Application filed May 5, 1903. Serial No. 155,700. (No model.)

To all whom it may concern:

Be it known that I, SYLVESTER D. NOEL, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Metal Boats, of which the following is a specification.

This invention relates to improvements in boats, and has special reference to boats for hunting and fishing which are to be propelled through water grown thick with entangling vegetation, but which are also well adapted for other uses.

The object of the invention is to provide an all-metal boat which will be light in weight for convenient portage purposes and to provide means whereby the boat may be lifted and carried with the least effort.

The object also is to provide a strong and durable and practically non-puncturable construction which will be of low cost to produce and of such curved formation of its bottom as will ride over or through obstructing vegetation without entanglement thereon.

I accomplish the objects of the invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of my invention; Fig. 2, a side elevation of same; Fig. 3, a longitudinal central section, on a reduced scale, along the line 3 3 of Fig. 1; Fig. 4, a transverse vertical section on the lines 4 4 of Figs. 1 and 2; and Fig. 5, a detail in vertical section of the side of the boat, showing the oar-lock and its attachment to the gunwale of the boat.

Like characters of reference indicate like parts throughout the several views of the drawings.

The body of the boat, comprising the bottom and sides, is formed of two pieces 6, which are joined together at the keel longitudinally of the boat. These two pieces will preferably be pressed from a single sheet of metal, the upper edges of which will be bent out at right angles to form the flanges 7 to stiffen and strengthen the gunwale, which, in addition to the flanges 7, is comprised of a frame 8, formed of two pieces of angle-iron turned with a horizontal upper flange and a vertical inner flange. To the vertical inner flange the sides 6 are riveted in the manner shown, with the horizonal flange of the angle-iron resting upon the flange 7 of the boat sides.

The lower edges of the boat sides 6 will be bent out to form the flanges 9. These flanges 9 of the two pieces 6 of a boat will be riveted together to form the keel of the boat, and this keel will be stiffened and strengthened by strips of iron or steel 10 10 placed outside of and riveted to the keel with the same rivets that unite the flanges 9 9.

The construction above described provides a rigid well-braced boat without the use of ribs such as are commonly required.

11 11 are air-tight compartments located at the prow and stern of the boat and of sufficient capacity to buoy up the boat when capsized. These compartments will preferably have their own bottom and side walls, so as to make a double thickness with the walls of the boat to thereby guard more effectually against danger of puncture of said air vessels.

12 represents plates having longitudinal grooves in their inner edges to receive the horizontal flanges of the boat's gunwale, to which said plates are secured by rivets, as shown in Figs. 5 and 1. The plates have depending ears 13 to bear against the sides of the boat and increase the strength and stability of the structure. Outside of the limits of the gunwale are the cylindrical depending portions 14, with longitudinal bore-forming sockets for the stem of oar-locks 15. The latter are of usual construction. As shown in Fig. 1, the horizontal member of the gunwale of the boat is provided with a series of equidistant holes to receive the bolts by which the oar-lock plates 12 are supported and enabling the plates to be changed in position on the gunwale to suit the convenience of the rower at the oars. Suitable ones of the unoccupied holes are used to receive the hooked ends of seat-supporting irons 16. There are four of these irons for each seat, connected in pairs by the cross-bars 17, (see Fig. 3,) and upon these bars the seat-board 18 is supported.

Where portages are required to be made, it is usually difficult to carry the boat on account of the inconvenient means for lifting and hold-

ing it, and to facilitate the handling of the boat in this respect I provide a fixed sleeve 19 at each end of the boat, preferably as integral portions of plates 20, which connect the angle-bars of the two gunwales and bind them together. Also to the boat's keel I removably secure brackets 21, which terminate with sleeves 22 outside of and in alinement longitudinally of the boat with the sleeve 19. Each pair of sleeves 19 and 22 form holders to receive the end of an oar-handle which is thrust therein. The projecting oar provides a means for hoisting the boat by the carriers getting under the oars in stooping position, with their shoulders under and against the oars. Then by raising to a standing position the boat will be raised and the weight of the boat on the carrier's shoulders will be placed so as to be sustained with the least inconvenience and fatigue to him.

The boat is rounded at both ends, so as to be propelled with ease in either direction and so it will ride readily over or through entangling vegetation—such as grass, reeds, lily growths, and the like—and when the brackets 21 form obstructions to engage such growths the brackets may be removed and reattached when they are needed for portages.

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

1. The combination with a boat having an angle-iron gunwale with a horizontal top member, said member having a plurality of equidistant holes, of removable seat and oar-lock attachments adapted to be supported from said horizontal member and fastenings therefor entering said holes.

2. A boat having horizontal sleeves at prow and stern to form oar-sockets for the attachment of oars as handles for carrying the boat.

3. A boat having a pair of horizontal sleeves at prow and stern to receive carrying-bars, the outer one of each pair of sleeves being removable.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 29th day of April, A. D. 1903.

SYLVESTER D. NOEL. [L. S.]

Witnesses:

RUSSELL T. MACFALL,

HORACE G. MARTIN.