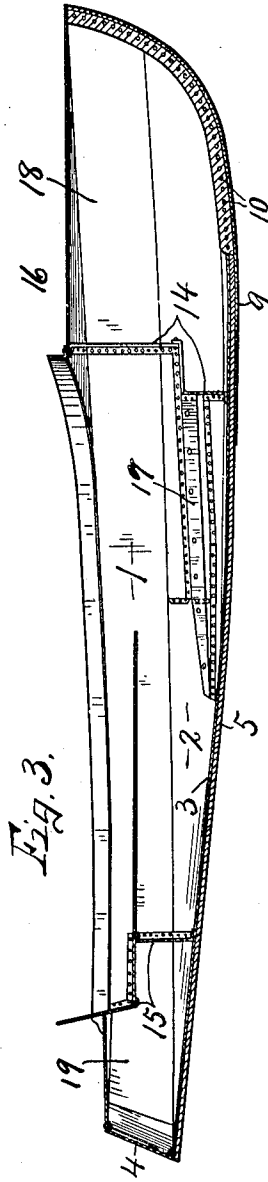
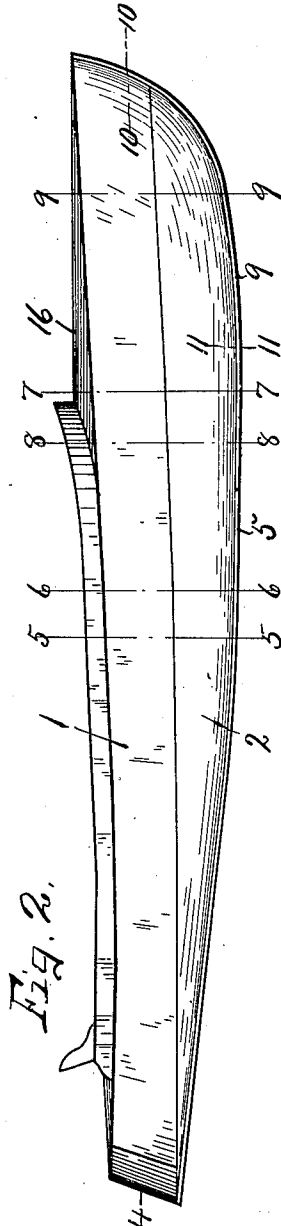
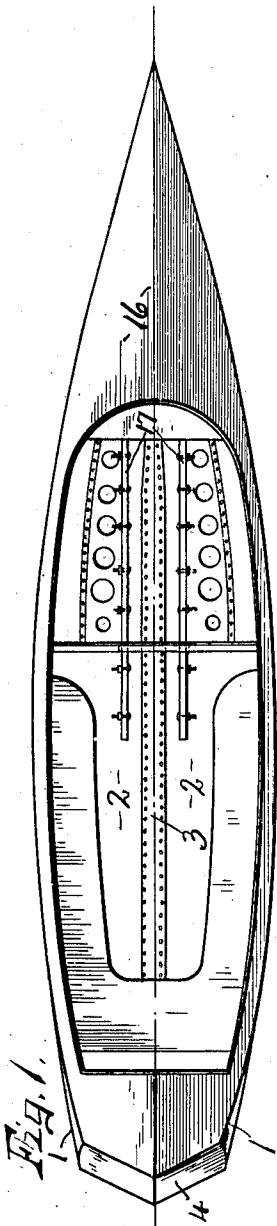


G. H. HYDE.
SHEET METAL BOAT.
APPLICATION FILED FEB. 13, 1909.

926,252.

Patented June 29, 1909.

3 SHEETS—SHEET 1.



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3 SHEETS—SHEET 2.

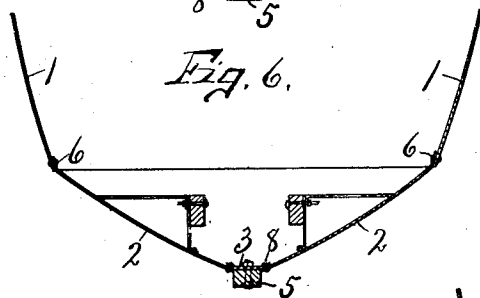
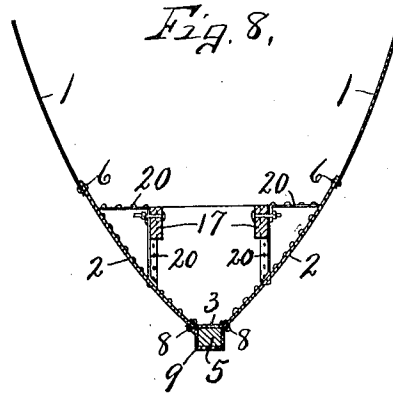
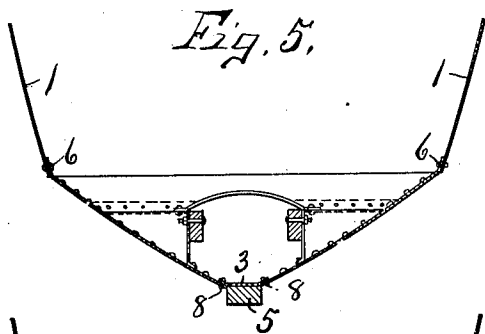
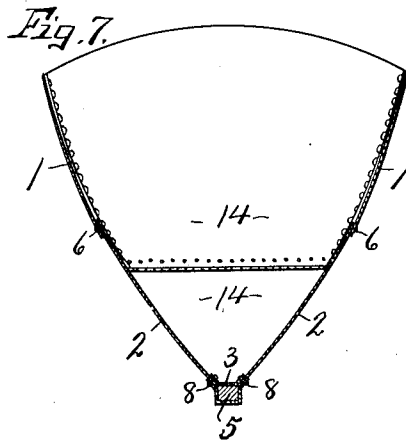
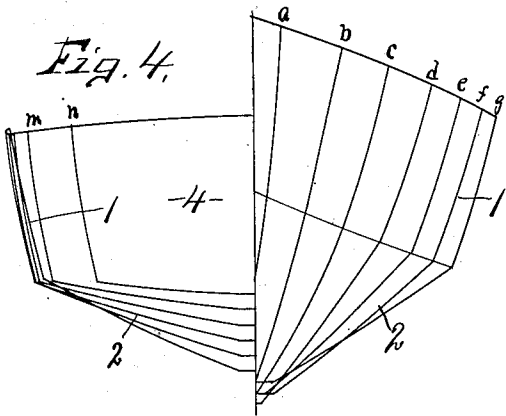


Fig. 9.

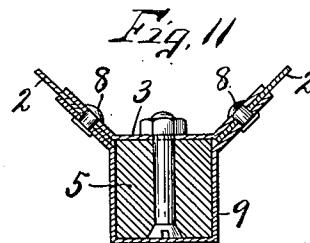
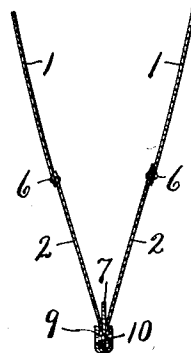
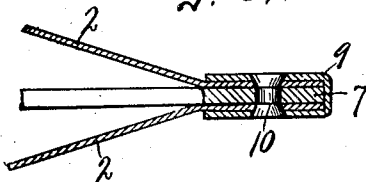


Fig. 10.



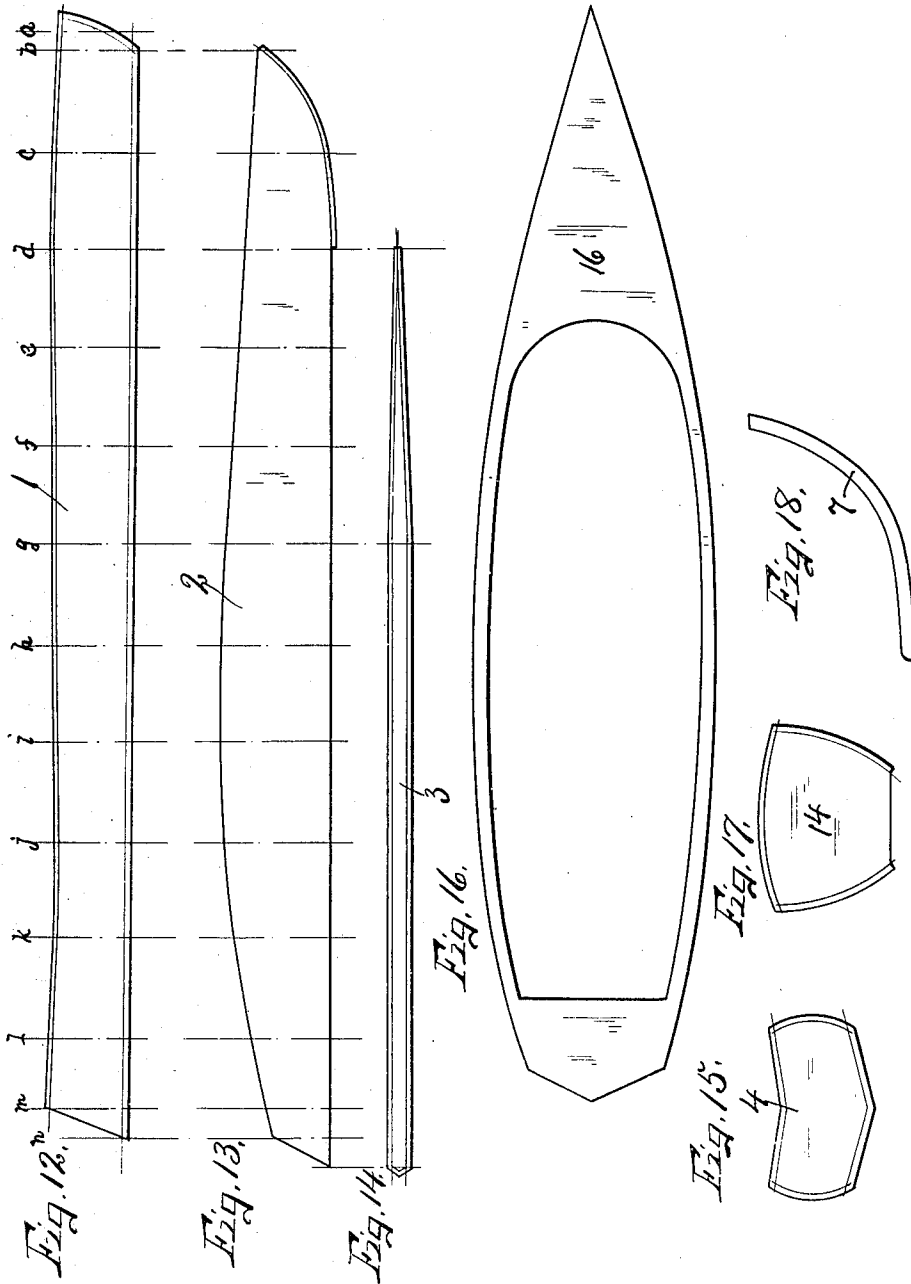
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

GEORGE H. HYDE, OF WATERTOWN, NEW YORK.

SHEET-METAL BOAT.

No. 926,252.

Specification of Letters Patent.

Patented June 29, 1909.

Application filed February 13, 1909. Serial No. 477,701.

To all whom it may concern:

Be it known that I, GEORGE H. HYDE, of Watertown, in the county of Jefferson, State of New York, have invented new and useful
5 Improvements in Sheet-Metal Boats, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in the manufacture of sheet metal motor boats, row boats and similar small water craft, and refers more particularly to the construction of the blanks which form the shell to give such shell the desired form,
10 rigidity and symmetry with the least possible labor and expense.

The main object is to enable the blanks, which are to form the shell, to be manufactured and sold to boat builders and others in flat, knocked-down condition and readily riveted or otherwise secured together at their meeting edges without further cutting or fitting, so that the assembled parts will assume the desired form, rigidity and symmetry ready to launch and receive such other trimmings or fittings as may be desired. In other words, I have sought to produce a shell exclusively of the keel and sometimes the stern piece from duplicate sets of flat
20 pieces of sheet metal of suitable gage, each piece extending from bow to stern, and previously cut in such manner that when their meeting edges are secured together, the shell will assume the desired form.

35 Other objects and uses will appear in the following description:

In the drawings—Figures 1, 2 and 3 are respectively a top plan, a side elevation and longitudinal vertical sectional view of a motor boat embodying the various features of my invention. Fig. 4 is an end view showing the lines upon which the shell is developed. Figs. 5, 6, 7, 8 and 9 are transverse sectional views taken respectively on
40 lines 5—5, 6—6, 7—7, 8—8 and 9—9, Fig. 2. Figs. 10 and 11 are enlarged sectional views taken respectively on lines 10—10 and 11—11, Fig. 2. Figs. 12 and 13 are plan views of the detached sheet metal blanks for forming one half of the shell. Fig. 14 is a plan view of the blank keel piece. Fig. 15 is a plan of the blank stern piece. Fig. 16 is a top plan of the blank for forming the deck or top of the boat. Fig. 17 is a plan view of

one of the detached bulkheads. Fig. 18 is 55 an elevation of the bow beam.

The shell of the boat is composed of duplicate sets of sheet metal blanks —1— and —2—, those of one set forming one side of the boat and those of the other set forming
60 the opposite side of the boat, although in this instance I employ a sheet metal keel piece —3— and sheet metal stern piece —4—. The stern piece —4—, may, however, be omitted and the corresponding ends of the
35 opposite sets of side and bottom pieces —1— and —2— are secured directly to each other.

The blanks shown in Figs. 12 and 13 form the side and bottom of one half of the shell, it being understood that a corresponding set of blanks are employed to form
70 the opposite side of the shell, and, therefore, whatever may be said of the blanks of one set applies also to the blanks of the opposite set. The blanks —1— and —2—
75 extend from stem to stern and when secured together edge to edge, constitute the whole of one side of the boat with the exception of the keel piece —3— which is very narrow and is simply used as a convenient tie piece
80 between the meeting keep edges of the blanks —2—, and also for receiving and sustaining an auxiliary keel —5— of wood, which serves as a buffer to protect the metal from undue wear in drawing the boat into
85 and out of the water. The transverse width of the plate —1— diminishes progressively from the ends toward the center, so that the ends are slightly wider than the intervening portions, and are deflected upwardly
90 at a slight angle to give the proper pitch to the bow and stern of the boat, the lower edge of said blank —1— being nearly or substantially straight. The blank —2—
95 which constitutes substantially one half of one side and bottom of the boat, progressively or gradually increases in width from the ends toward the center, the upper edge being gradually convexed from end to end and is of substantially the same length as
100 the lower edge of the blank —1—, to which it is adapted to be secured by suitable fastening means, as rivets —6—, it being understood that the meeting edges of the plates —1— and —2— will lap one upon the other,
105 and are provided with registering rivet holes to receive the rivets. The front edges of the blanks —1— and —2— are curved

upwardly and forwardly in co-incident curved lines to give the desired form to the bow of the boat, while the rear ends of the same elements are also inclined to give the desired form to the stern of the boat, and in this particular instance are inclined downwardly and rearwardly and are attached by rivets or other simple fastening means to the side and bottom edges of the stern piece —4—. The front ends of the sheet metal blanks —1— and —2— are secured to the opposite faces of a similarly curved bow beam —7—, preferably made of steel and extending from the upper point of the bow downwardly a short distance to the rear of said bow, where it forms a part of the keel. The sheet metal keel piece —3— extends from the rear end of the bow beam —7— to the stern of the boat, and its opposite longitudinal edges are deflected upwardly and laterally to fit closely against the inner faces of the adjacent edges of the lower sheet metal blanks —2—, and are secured in place by suitable rivets —8—, thereby forming a water-tight connection between the lower keel edges of the side pieces —2—. A sheet metal finishing shield or casing —9— is fitted around the front and side edges of the plates —1— and —2— and interposed bow beam —7—, and is held in place by rivets —10— passing transversely through the adjacent parts, said shield extending some distance rearwardly beyond the rear end of the bow piece —7— for receiving and inclosing the front end of an auxiliary keel piece —5—, which latter is coincident in length with the sheet metal keel piece —3— to protect the latter from undue wear or injury in drawing the boat into and out of the water.

In Figs. —12—, —13— and also in Fig. —4— I have shown a series of coördinate lines or loci lettered alphabetically from "a" to "n" inclusive, so that by comparison of the lines in diagrammatic view shown in

Fig. 4, certain positions on the blanks may be readily located in the diagrammatic view of the boat.

In Fig. 3 I have shown two bulkheads —14— and —15— located respectively near the bow and stern of the boat, forming, together with the top section, as —16—, air tight compartments —18— and —19— to give the boat greater buoyancy, the intervening space between the bulkheads forming the pit for receiving the motive power and other mechanism necessary in the propulsion of the boat, or may be equipped with seats when used only as a row boat.

When an engine or other motor is used, it is preferably supported upon suitable lengthwise beams or stringers —17— which are located parallel with, and at opposite sides of, the keel, and are held in place by sheet metal brackets or braces —20—, the latter being secured in a suitable manner to the inner faces of the side pieces or blanks —2—.

The main feature of my invention, however, consists in the construction of the flat sheet metal blanks —1— and —2—, which, in ordinary row boat construction, may form the entire boat, using the sheet metal keel piece —3— when necessary.

What I claim is:—

In a sheet metal boat duplicate sets of sheet metal plates forming the sides and bottom of the boat, those of each set being disposed one above the other, the upper section gradually diminishing in width from its ends toward the center, and a lower section gradually increasing in width from its ends toward the center, the adjacent lengthwise edges of the plates of each set being of substantially the same length.

In witness whereof I have hereunto set my hand this 9th day of February 1909.

GEORGE H. HYDE.

Witnesses:

KATHRYN S. CULLEN,
FRED H. MOORE.