Sheet 1-2 Sheets

R. McDonald

Ventilating Ships,

No. 2,336. Patented Nov. 10, 1841.

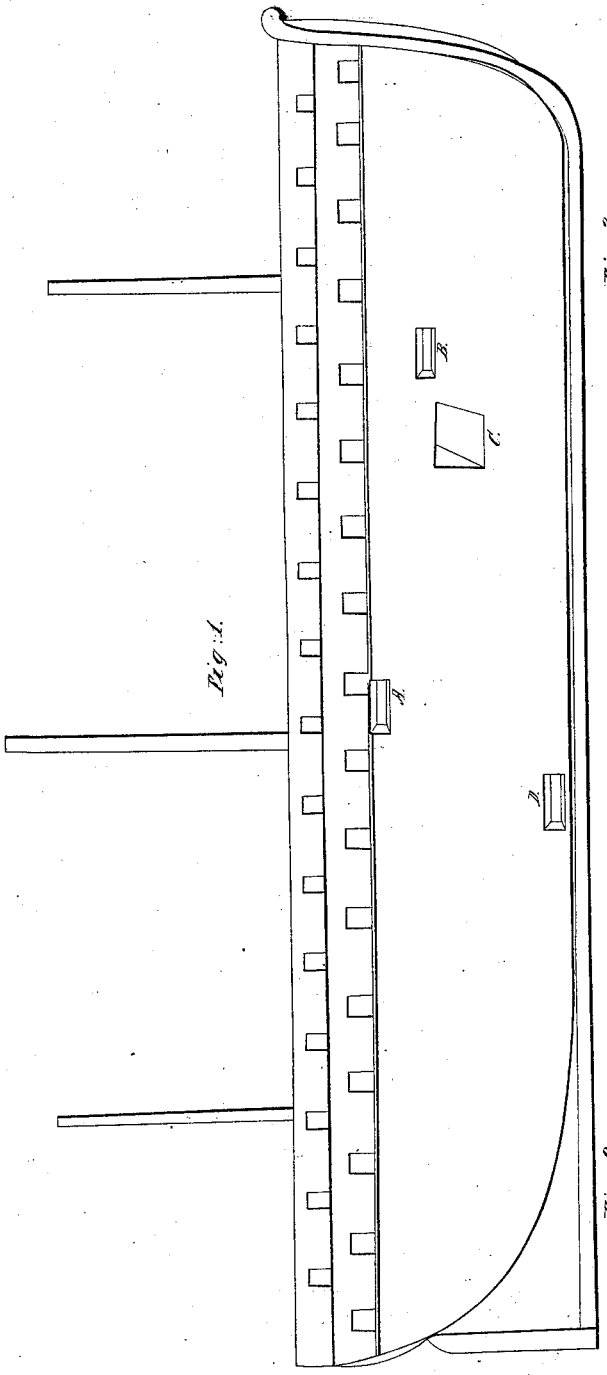

Fig: 1.

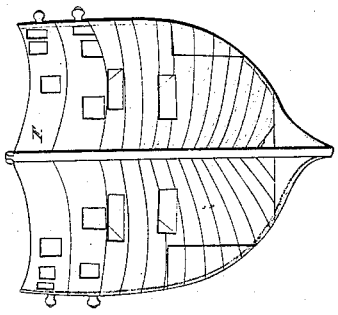

Fig: 3.

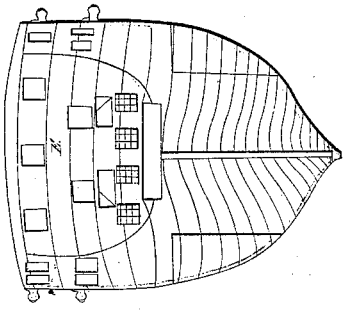

Fig: 2.

Sheet 2 - 4 Sheets.

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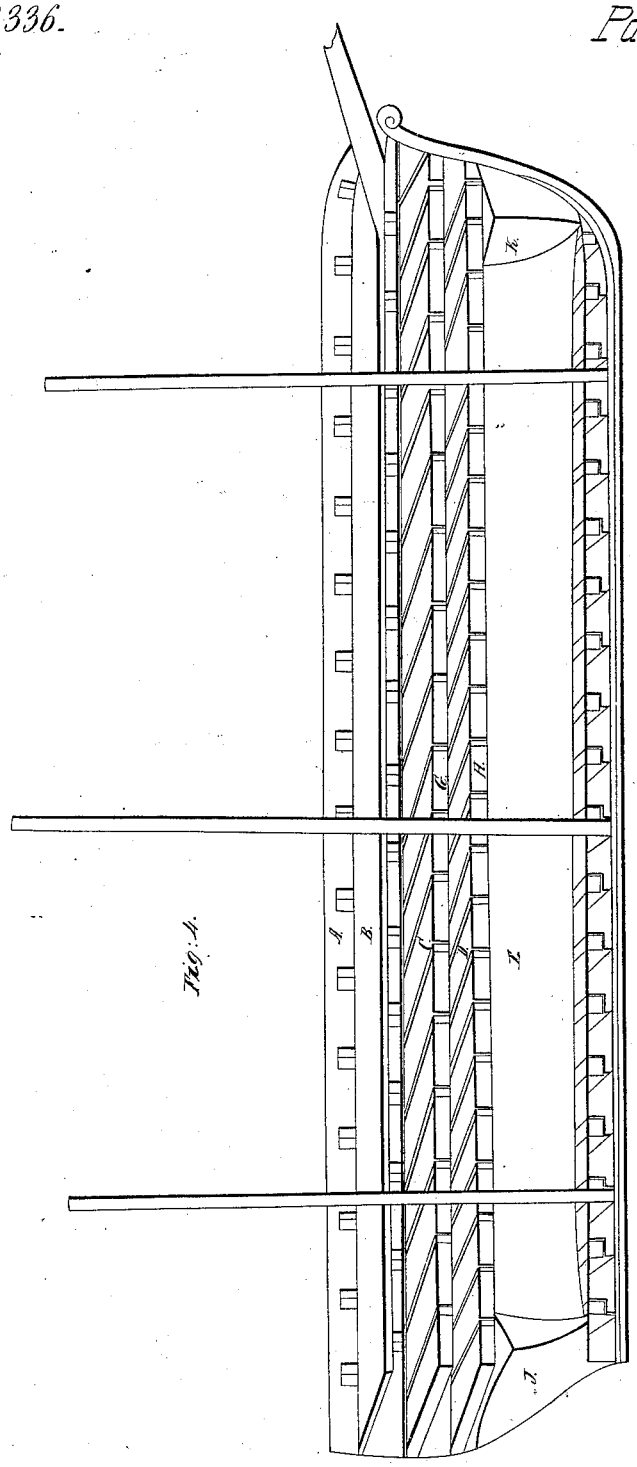

Fig: 1.

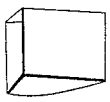

Fig: 6.

Fig: 5.

Sheet 3-4, Sheets.

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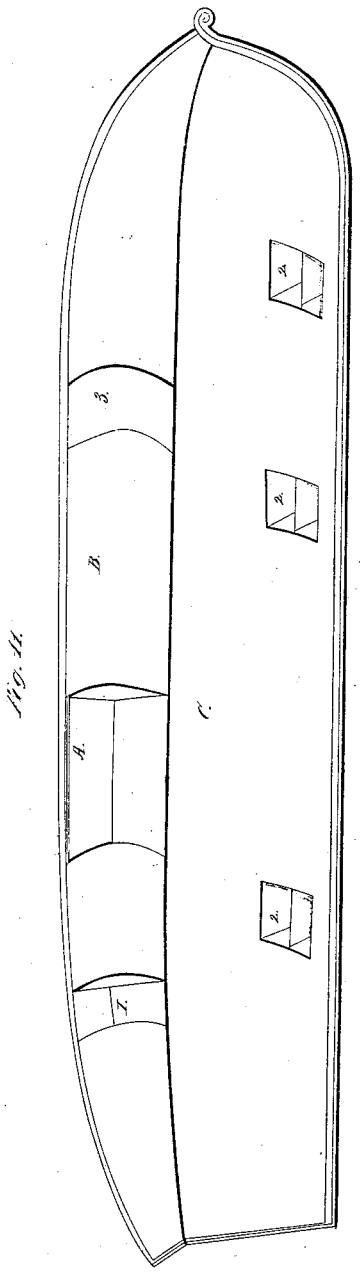

Fig. 1.

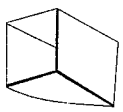

Fig. 1a.

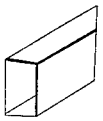

Fig. 1b.

Fig. 1c.

Sheet 1 - 4 Sheets.

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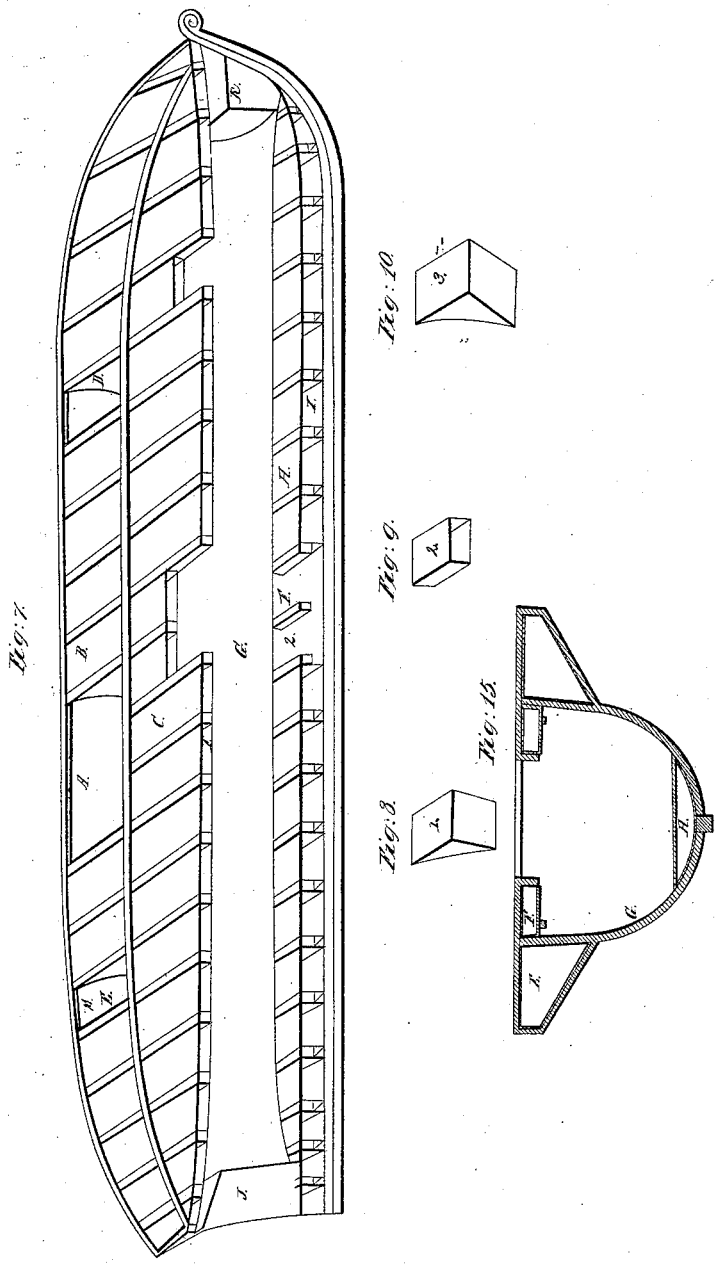

UNITED STATES PATENT OFFICE.

RICHARD McDONALD, OF HARRISBURG, PENNSYLVANIA.

MANNER OF CONSTRUCTING STEAM VESSELS TO PREVENT THEM FROM SINKING.

Specification of Letters Patent No. 2,336, dated November 10, 1841.

To all whom it may concern:

Be it known that I, RICHARD McDONALD, of Harrisburg, Dauphin county, State of Pennsylvania, have invented a new and useful improvement in the construction of vessels with air-tight trunks to prevent them from sinking when pierced or otherwise injured and for other purposes, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a side elevation of a frigate built with air tight trunks of copper or other suitable material in which *c* shows the position of the side trunk and the keelson trunk. Fig. 2 stern of ditto. Fig. 3 bow of ditto. Fig. 4 is a vertical longitudinal section showing the interior of the side of the frigate and the position of the air tight trunks for preventing her from sinking, in which G are the main deck air trunks, H the lower deck air trunks, I the keelson air trunks, J the stern air trunks, K the bow air trunks. Fig. 5 represents one of the deck air trunks with an end removed. Fig. 6 represents one of the side trunks. Fig. 7 is a vertical section of the larboard side of a steam boat showing the position of the air trunks in which I are the keelson trunks, J stern trunks, K bow trunks. Fig. 8 one of the stern air trunks. Fig. 9 one of the keelson ditto. Fig. 10 one of the bow trunks. Fig. 11 is a view of a steam boat drawn over on one side for exposing the other side above water for repairing her or for any other purpose required the air tight trunks preventing her from sinking as she is hauled over or carreened. Fig. 12 after guard trunks. Fig. 13 keelson trunk. Fig. 14 forward guard trunk A, the wheel space B, the starboard guard, C the hull. Fig. 15 vertical cross section of steamboat.

The frigate is made in the usual manner. The improvement is in the arrangement of air trunks which are arranged in spaces in the interior of the ship usually lost for any useful purpose such as the spaces immediately under the decks between the beams and over the keelson and around the bow and stern air chambers thus arranged will support the ship afloat although she may be filled with water see Fig. 4.

In the construction of the steam boat the spaces under the wheel guard which are usually left open I close so as to form chambers to receive my air tight trunks. The spaces between the beams of the decks and keelson are filled in with these air tight trunks, see Fig. 7. These trunks are all made of copper, or of the most suitable material and of a shape to correspond with the spaces which they are intended to occupy.

What I claim as my invention and which I desire to secure by Letters Patent is—

In closing the spaces under the wheel guards of the boat and filling them with air chambers in combination with the arrangement of air chambers over the keelson and under the deck to prevent them from sinking when snagged, or otherwise injured as described.

RICHARD McDONALD.

Witnesses:
WM. P. ELLIOT,
EDW. MAHER.