Dec. 13, 1966 W. J. LITHGOW 3,291,089

SHIP CONSTRUCTION

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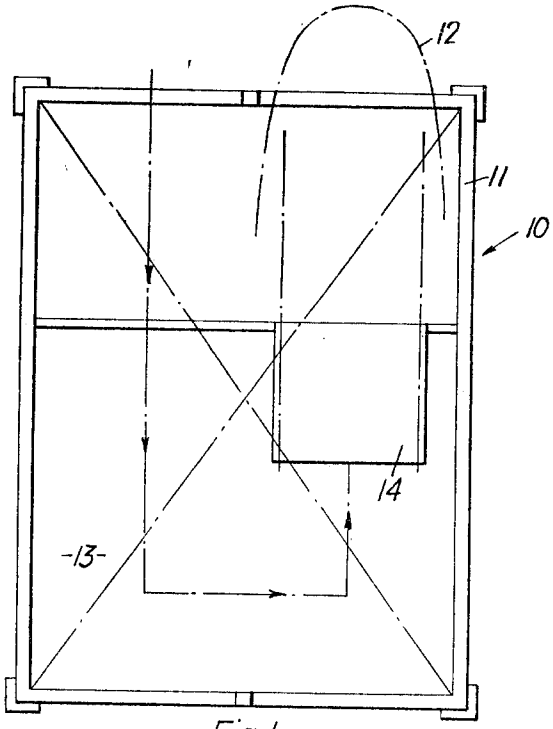


Fig. 1.

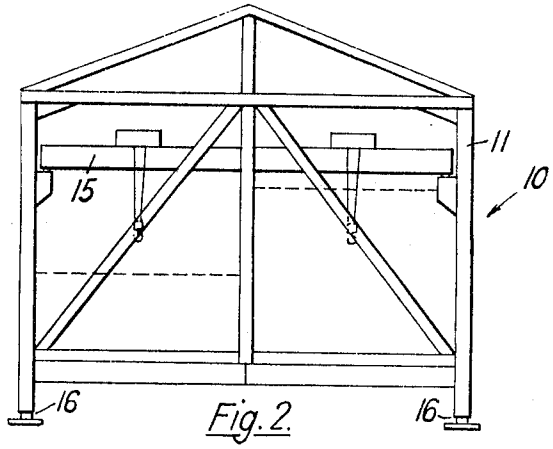


Fig. 2.

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SHIP CONSTRUCTION

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This invention relates to improvements in ship construction.

This invention provides a method of constructing a ship, including mounting a mobile shed over the berth on which the ship is to be built, fabricating successive sections of the ship, securing the sections into position on the ship in the shed, and progressively moving the shed towards one end of the berth as the completed portion of the ship increases in length.

The method may include placing the fabricated sections on a vertically movable platform for correctly locating them and securing them to the completed portion of the ship.

The sections may be fabricated in the shed.

The present invention also provides means for constructing a ship including in combination a ship-building berth, a rigid, mobile shed extending across the berth, means in the shed for handling sections of a ship, and shed moving means for progressively moving the shed along the berth.

The shed may include a floor and apparatus for fabricating sections of a ship thereon.

A vertically movable platform may be provided at the rear edge of the floor.

Embodiments of the present invention will now be described, by way of example, with reference to the accompanying drawing in which FIGS. 1 and 2 are respectively diagrammatic plan and elevational views of ship-constructing means according to the invention.

Referring now to the drawing, in a first embodiment a mobile ship-constructing shed **10** is built on a strong and rigid frame **11** which straddles a shipbuilding berth so that the berth is located as indicated by the hull **12** in FIG. 1, at one side of the shed **10**. The shed **10** is shorter than the berth, e.g. about ⅓ the length of the berth. One half, the forward half, of the shed **10** is provided with a floor **13** on which fabrication work can take place and which is raised sufficiently from the bottom of the berth to be clear of tides. At the rear of the floor **13** and over the berth is provided a platform **14** which is vertically movable by means of, for example, hydraulic jacks and which may also be movable transversely of the berth. The shed **10** is also provided with gantry cranes **15** mounted on the frame **11** which enable ships sections and material to be handled in the shed. The forward end of the shed is closed to provide protection from the weather and at the rear of the shed draught excluders (not illustrated) in the form of movable curtains are provided. The draught excluders over the berth are capable of following the contour of the ship.

The whole shed is capable of moving along the berth

by means of shed moving gear **16** which in this embodiment is of the moving feet type hydraulically or electrically operated, as this gives stable location when fabrication, lifting and jacking operations are in progress.

When the shed is in use, the ship is normally constructed from stern to bow, the shed **10** being progressively moved forwards along the berth as the finished portion of the ship increases in length from the stern. Raw or partially fabricated materials are fed into the shed at the rear and are fabricated into suitable ships sections on the floor **13** of the shed **10**. Each section is then lifted into place by means of gantry cranes **15** or placed on the movable platform **14** which is raised or lowered to locate the section correctly on the completed portion of the ship and is secured in position by welding or riveting.

In a modification of the embodiment the materials are fed into the shed at the front where draught screens are provided, the rear of the shed being closed by draught screens over the berth and hull.

The advantages that accrue from the present invention are that ships may be built efficiently, that adverse weather conditions do not affect construction, and that existing berths can be converted easily to permit this method of constructing ships.

I claim:

1. A method of constructing a ship, including mounting a mobile shed over a ship's berth of substantially greater length than the shed, fabricating successive sections of the ship, securing the sections into position on the ship in the shed, and progressively moving the shed towards one end of the berth as the completed portion of the ship increases in length.

2. A method of constructing a ship as claimed in claim 1, including placing the fabricated sections on a vertically movable platform for correctly locating them and securing them to the completed portion of the ship.

3. A method of constructing a ship as claimed in claim 1, in which the shed is moved from the stern to the bow of the ship.

4. A method of constructing a ship as claimed in claim 1, in which the shed moves away from the water during construction of the ship.

5. A method of constructing a ship as claimed in claim 1, in which materials or prefabricated parts are fed into the shed at one end thereof.

6. A method of constructing a ship as claimed in claim 5, in which materials or prefabricated parts are fed into the shed adjacent the completed portion of the ship.

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