Aug. 4, 1936. K. G. MELDAHL 2,050,238

ARRANGEMENT OF MARINE BOILERS

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Fig. 1

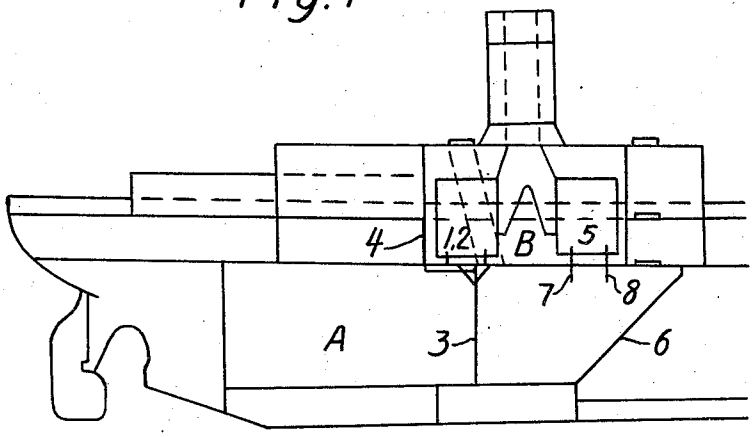
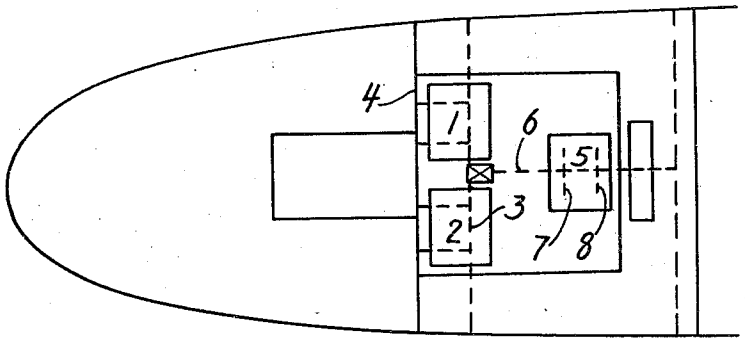


Fig. 2



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ARRANGEMENT OF MARINE BOILERS

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Fig. 3

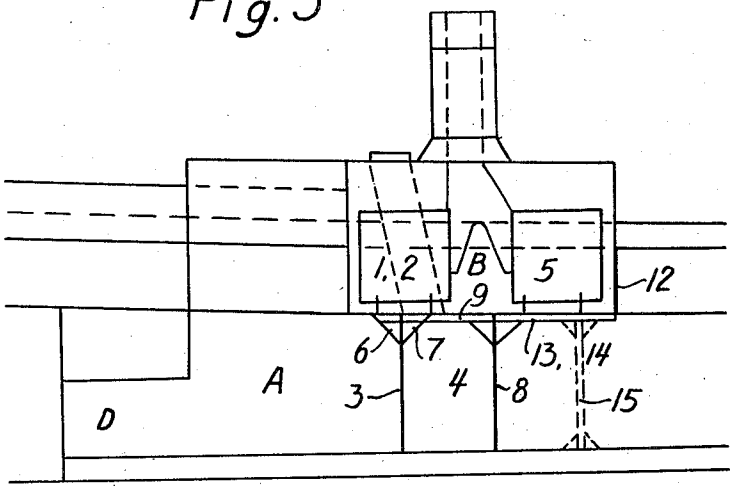
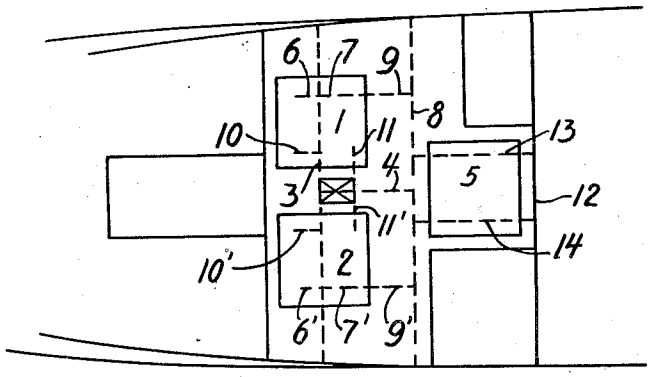


Fig. 4



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Fig. 5

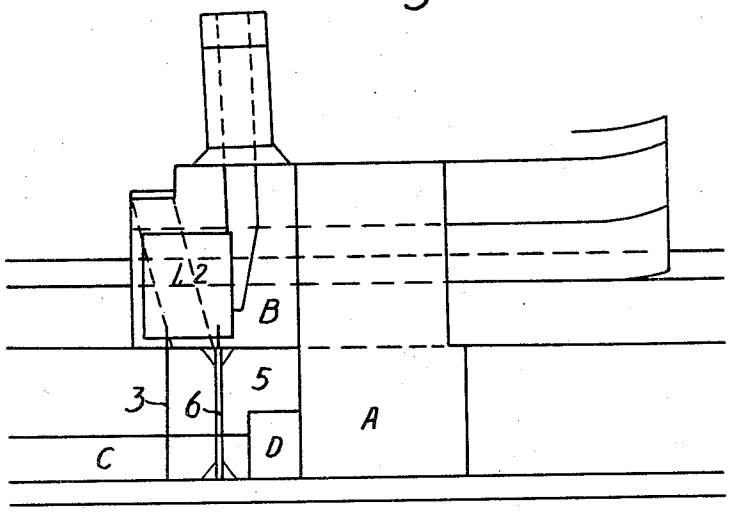
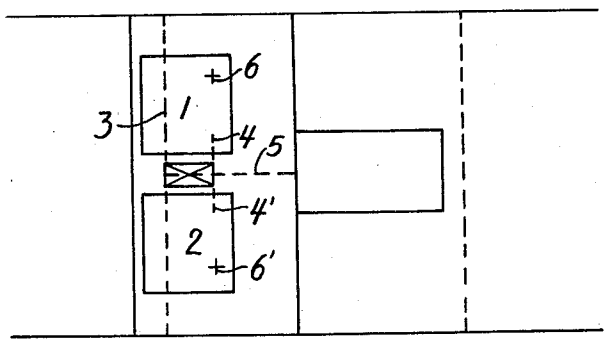


Fig. 6



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Patented Aug. 4, 1936

2,050,238

UNITED STATES PATENT OFFICE

2,050,238

ARRANGEMENT OF MARINE BOILERS

Knud Georg Meldahl, Fredriksstad, Norway

Application October 16, 1931, Serial No. 569,327
In Norway September 1, 1931

2 Claims. (Cl. 114—72)

This application is a continuation-in-part of my prior filed application Serial No. 549,763, filed July 9, 1931.

The present invention relates to arrangements for the supporting or carrying of the main boiler or boilers of steamships in which the boilers are mounted on a deck or platform at some height above the bottom of the ship or the tank top, so that a space which is preferably utilized for bunkers, auxiliary machinery or the like is available below the boilers.

A difficulty in connection with the mounting of the boilers on an elevated deck or platform is the construction of a suitable and sufficiently strong carrying and stiffening arrangement for the boilers, without an objectionable increase of the weight. According to the present invention this difficulty is overcome by transferring the weight of the boiler wholly or partly to elements of the hull of the ship, especially to bulkheads, either existing bulkheads or bulkhead provided especially for the said purpose. Such bulkheads may bound the room below the boiler or they may be arranged within the same, so that the boiler may rest directly on the bulkhead or on brackets or the like provided on the same, or they may be arranged in the upper part of the vessel, longitudinally or transversely, so as to serve as girders on which the boiler is suspended.

In many cases it will be suitable to combine the said bulkheads with other constructional parts, for instance the propeller shaft tunnel, recesses or the like, and likewise, pillars (stanchions) or girders may be employed together with the bulkheads.

The drawings illustrate some embodiments of the invention. In all figures A is the engine room, B the boiler room, C the propeller shaft tunnel and D recesses.

In the embodiment illustrated in longitudinal section and in plan view in Fig. 1 and Fig. 2 respectively, the two rear boilers 1 and 2 are supported at their forward end by the transverse bulkhead 3 which is carried down to the tank top, while the boiler foundations at the rear end of the boilers are supported or suspended in the transverse bulkhead 4 between two decks, which bulkhead serves as a girder. For the supporting of the forward boiler 5 there is arranged a central longitudinal bulkhead 6 in the space below the boiler (the bunker) provided with strong brackets 7, 8, on which the boiler foundation rests.

Figs. 3 and 4 show an arrangement, likewise with three boilers, two aft and one forward in the boiler room. The two rear boilers 1, 2 are here carried partly by the transverse bulkhead 3 bounding the room below the boiler, partly by the central longitudinal bulkhead 4 in the same room, the weight of the boilers being transferred to bulkhead 3 by means of the brackets 6, 7 and 6', 7', with the beams 9, 9' laid between this bulkhead and the bulkhead 8, and by means of the brackets 11, 11' to the bulkhead 4. The forward boiler 5 is supported partly by the transverse bulkhead 8 which is carried down to the tank top, partly by the transverse bulkhead 12 which serves as a girder, beams 13, 14 carrying the boiler foundation being arranged between the said two bulkheads 8 and 12. Besides or instead of the bulkhead or girder 12 there may be used pillars or stanchions 15 for the supporting of the said beams 13, 14 as shown with dotted lines in Fig. 3.

Figs. 5 and 6 show an arrangement of the two boilers 1 and 2, which at their rear end rest on the transverse bulkhead 3 bounding the room below the boilers, and at their forward end rest partly on brackets 4, 4' on the central longitudinal bulkhead 5 carried by the propeller shaft tunnel in the said room, and partly on pillars or stanchions 6, 6' in this room.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. In a steam propelled sea-going vessel having propulsion means at the stern of the vessel only and having its engines and boilers located between cargo holds both forward of and abaft of the same and having a platform elevated to a considerable extent above the vessel's bottom, the combination with walls defining an engine room located below said platform, of walls defining a boiler room having boilers therein constituting the sole means for the generation of steam for propelling the vessel, a propeller shaft tunnel extending aft from said engine room and supported on the vessel's bottom, said boiler room being located on said platform and abaft and directly adjacent the engine room, and boiler supporting means including a bulkhead supported on said propeller shaft tunnel.

2. In a steam propelled sea-going vessel having propulsion means at the stern of the vessel and having its engines and boilers located between cargo holds both forward of and abaft of the same and having a platform elevated to a considerable extent above the vessel's bottom, the combination with walls defining an engine room located below said platform, of walls defining a boiler room having boilers therein for the generation of steam for propelling the vessel, a propeller shaft tunnel extending aft from said engine room and supported on the vessel's bottom, said boiler room being located on said platform and abaft and adjacent the engine room, and boiler supporting means including a bulkhead supported on said propeller shaft tunnel.

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