

Oct. 25, 1938.

C. J. BAER

2,134,352

MARINE CARRIER

Filed Jan. 31, 1936

2 Sheets-Sheet 1

Fig. 1-

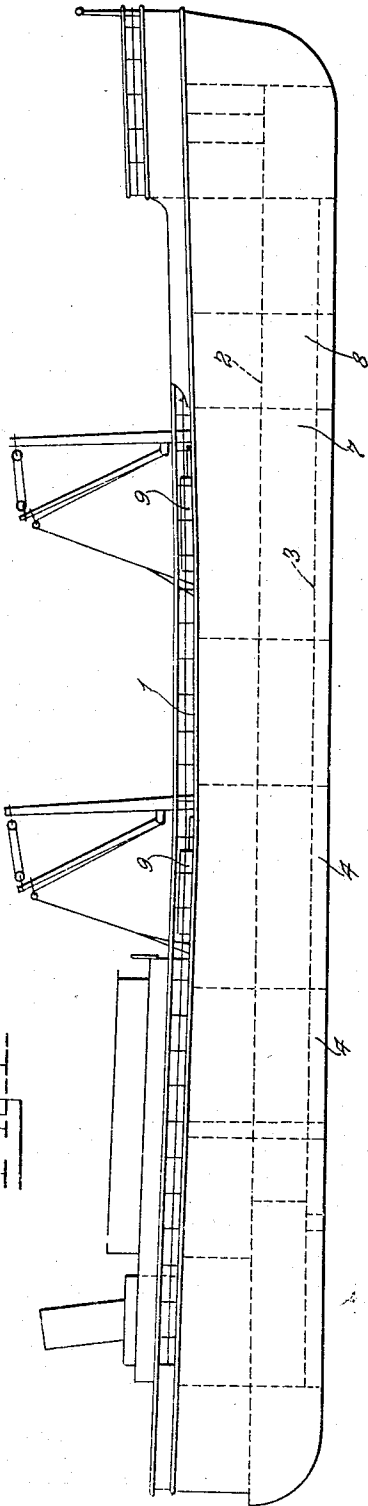


Fig. 2-

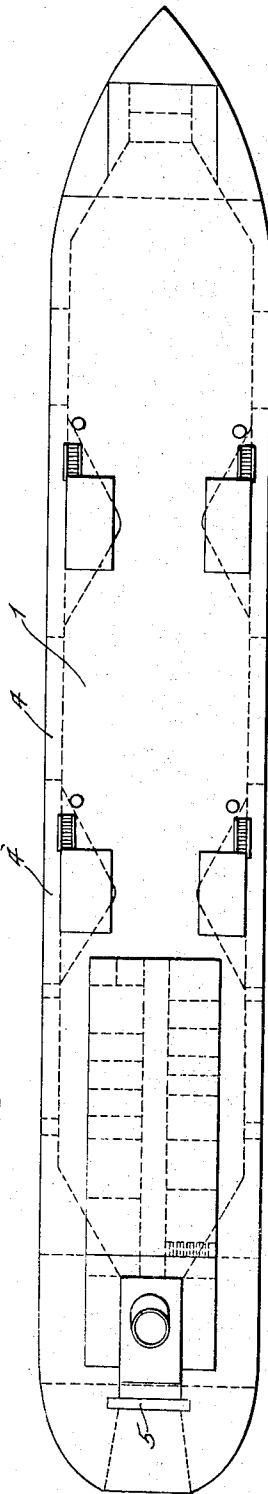
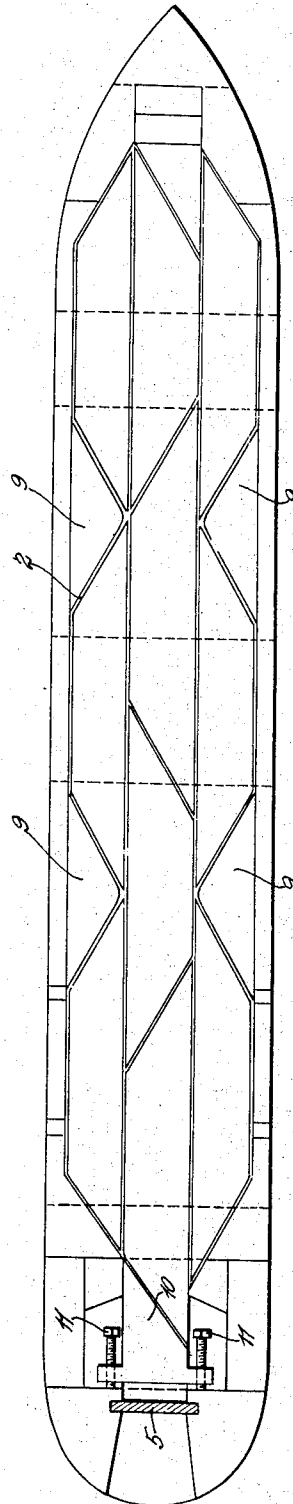


Fig. 3-



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Fig-4-

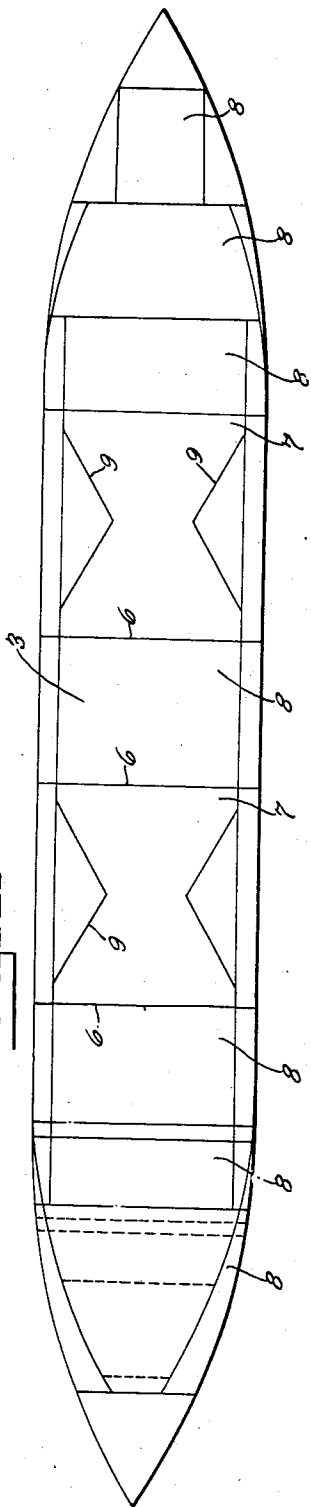


Fig-6-

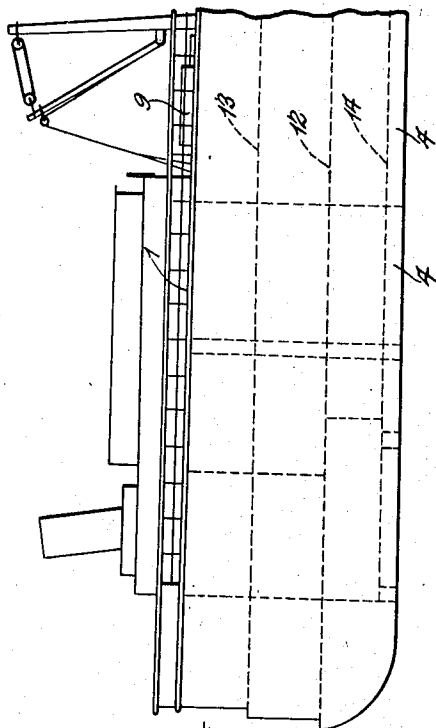
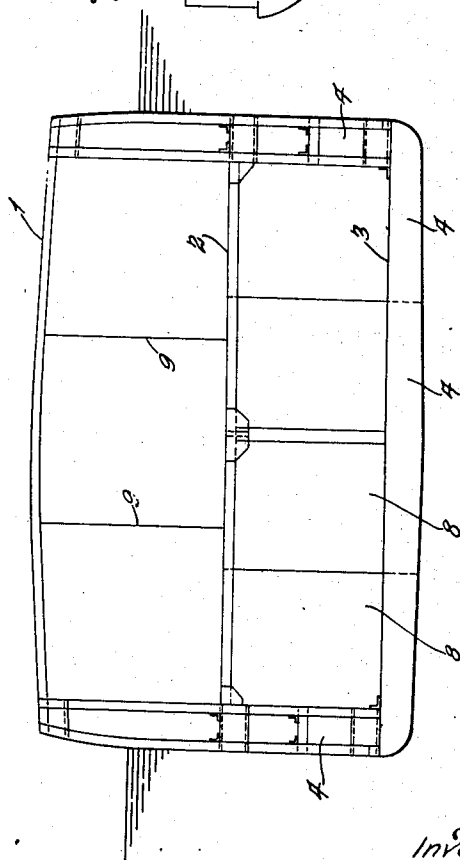


Fig-5-



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UNITED STATES PATENT OFFICE

2,134,352

MARINE CARRIER

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Application January 31, 1936, Serial No. 61,775

3 Claims. (Cl. 114-43.5)

This invention relates to a marine carrier and more particularly to a ship of such construction that barges or other floating units may be floated into place and carried economically over an extended trip.

An object of the invention is to provide a ship streamlined in construction and, therefore, economical as a carrier in which barges or other floating units may be loaded with other portions of the ship so constructed as to provide freight handling space.

Another object of the invention is to provide a carrier for freight handling including a plurality of separate water-tight units affording as it were a number of portable bulkheads.

Another object of the invention is to provide a carrier including a hull and a plurality of portable units so shaped as to substantially cover an entire deck and so arranged that the units may be readily wedged and held securely in position.

Other and specific objects of the invention will appear from the following detail description taken in connection with the accompanying drawings.

Fig. 1 is a side elevation of a ship embodying this invention;

Fig. 2 is a plan view showing the upper deck;

Fig. 3 is a plan view showing an intermediate or barge carrying deck;

Fig. 4 is a plan view showing a hold deck;

Fig. 5 is a vertical cross-section of the ship; and

Fig. 6 is a side elevation of a ship showing a modification.

The ship, as specifically illustrated in Fig. 1, includes a hull with an upper deck 1, a main or barge carrying deck 2, and a hold 3. The hull has a double bottom and sides to provide ballast tanks 4. By pumps, not shown, the ballast tanks may be filled and emptied to control the depth at which the ships rest in the water, thus permitting a ship to be submerged to a line below the deck 2. A water-tight gate 5 is provided by which access to the barge deck 2 may be had.

The hold is divided by partitions 6, as shown in Fig. 4, to provide cargo spaces 7 and cargo tanks 8. It is obvious, of course, that some of these tanks 8 may and will be used for fuel oil for fresh water and for other purposes than liquid cargo.

Hatch trunks 9 extend from the upper deck to the hold for communication with the cargo compartments 7. The arrangement then of the main or barge deck is such that barges may be floated into and out of the hull and into and out of the proper place on that deck through the gate 5.

As specifically illustrated on Fig. 3, it is proposed to use barges of peculiar formation whereby the space on this deck can be efficiently utilized. These barges are in the form of an isosceles trapezoid with the sides of the barges forming the bases of the trapezoid and the bow and stern of the barge forming the legs of the trapezoid. Barges of this peculiar construction and their general utility are disclosed in my application Serial No. 13,895, filed March 30, 1935. It will be observed that the hatch trunks 9 are such as to form recesses in the side of the horizontal compartment formed by the upper deck 1 and barge deck 2 in which the barges will nicely fit.

A master wedging device 10 of the form shown in Fig. 3 may be placed adjacent the gate 5. The member 10 has screws 11 by which the device may be operated. Thus, when the screws 11 are tightened the member 10 will be forced forwardly and all of the barges will be wedged in place. When it is desired to pass the barges, the wedging device 10 may be removed or it may be merely raised above the top of the barges. It is to be understood that except as limited by the claims the invention is not confined to the use of floating units of the shape mentioned or to the particular wedging or bracing means, although much utility resides in their use.

By the provision of the carrier as specifically described, barges suitable for use in a harbor or for use on inland lakes, rivers and canals may be directly loaded on the ship while provisions are made for elsewhere carrying freight, thus economizing in the use of space and making the carrier an efficient transportation device.

A construction embodying these improvements contains an added element of safety. The barges are watertight compartments and comprise, in effect, movable bulkheads. Should, for example, the ship's hull be damaged sufficiently to sink a ship of ordinary arrangement, the buoyancy of the barges would be ample to keep the ship afloat. In such a case the barges would rise in water upon their deck, until they reached the overhead deck 1, and then their buoyancy would assist in floating the hull. The barges may be open at the top, like coal barges, or they may be closed and have water-tight hatches, like merchandise barges. In either event the safety factor mentioned would be inherent.

The invention is not limited, of course, to the use of floating units suitable for freight carrying. The invention has a suitable application for naval purposes whereby submarines or other naval ves-

sels of light tonnage and small cruising capacity may be carried by a mother ship in such a manner that the minor craft may be readily loaded and unloaded at will.

- 5 Fig. 6 shows a modification of the invention in which two barge decks 12 and 13 are provided above a hold 14. In this modification, as well as in the preceding embodiment, necessary ballast
10 vessel may be regulated, thus permitting barges to be loaded either on the deck 12 or the deck 13.

It will be obvious that the specific construction of the ship as shown is not essential and that the invention may be utilized in ships having a variety
15 of forms. Various changes may be made in the details of construction, within the scope of the appended claims, and parts of the invention may be used without the whole.

I claim:

- 20 1. A marine carrier comprising a hull, a deck, a gate in the hull for the deck, partitions projecting inwardly from side walls above the deck forming recesses along said walls, a plurality of floating

units having straight sides and angular ends on the deck some of which fit in said recesses and all of which fit together to substantially fill said deck space, and means for submerging the carrier to a line above said deck whereby said units may be floated into and out of the carrier and into and out of place on the deck.

2. A marine carrier comprising a hull, a deck, a plurality of barges on the deck each in the form of an isosceles trapezoid and fitting together to substantially fill the deck space, a gate in the hull for the deck, and means for submerging the carrier to a line above said deck whereby said units may be floated into and out of the carrier and into and out of place on the deck.

3. A marine carrier comprising a hull, a plurality of decks, a gate in the hull for each of said decks, and means for selectively submerging the carrier to lines above the decks respectively, whereby floating container units may be floated through each of said gates and into and out of place on each of said decks.

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