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Westerlund et al.

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[54] **HOIST ARRANGEMENT ON SHIPS**

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[52] **U.S. Cl.** ..... **214/15 R,** 187/9

[51] **Int. Cl.** **B65g 67/58**

[58] **Field of Search** ..... 214/1 H, 14, 15 R, 214/15 E; 187/2, 9

[56] **References Cited**

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[57] **ABSTRACT**

This invention relates to a hoist arrangement of the kind intended for use on ships and comprising a lift cage guided by a vertical frame and movable therein.

1 Claim, 3 Drawing Figures

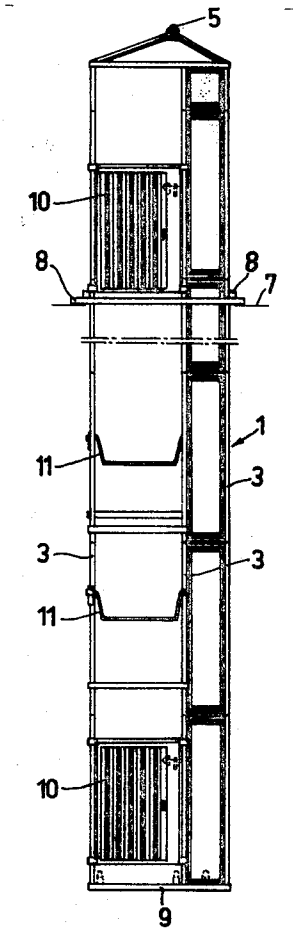


FIG.1

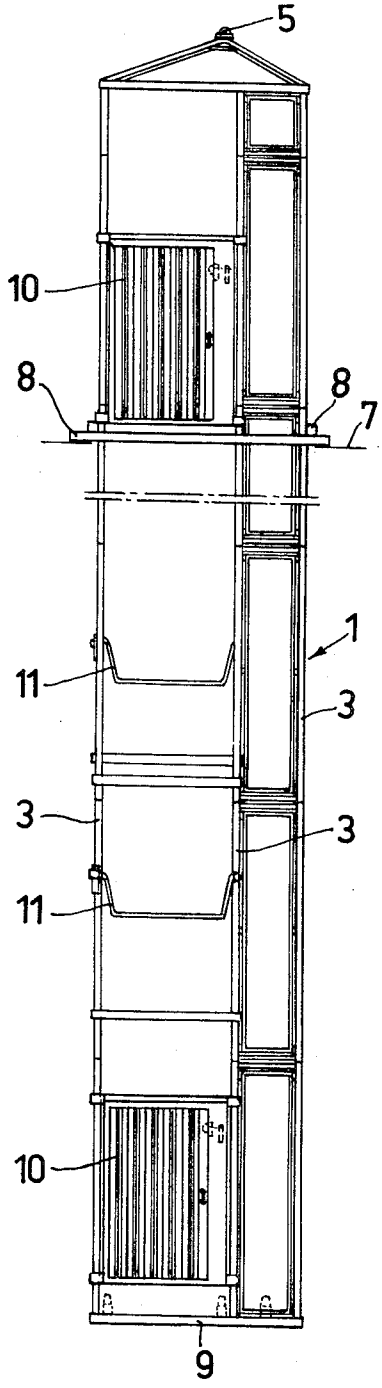


FIG.2

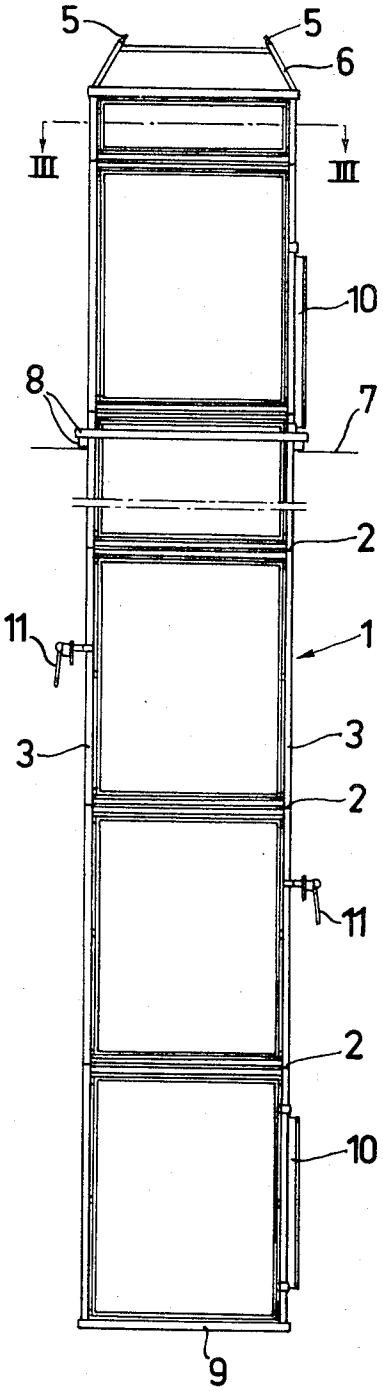
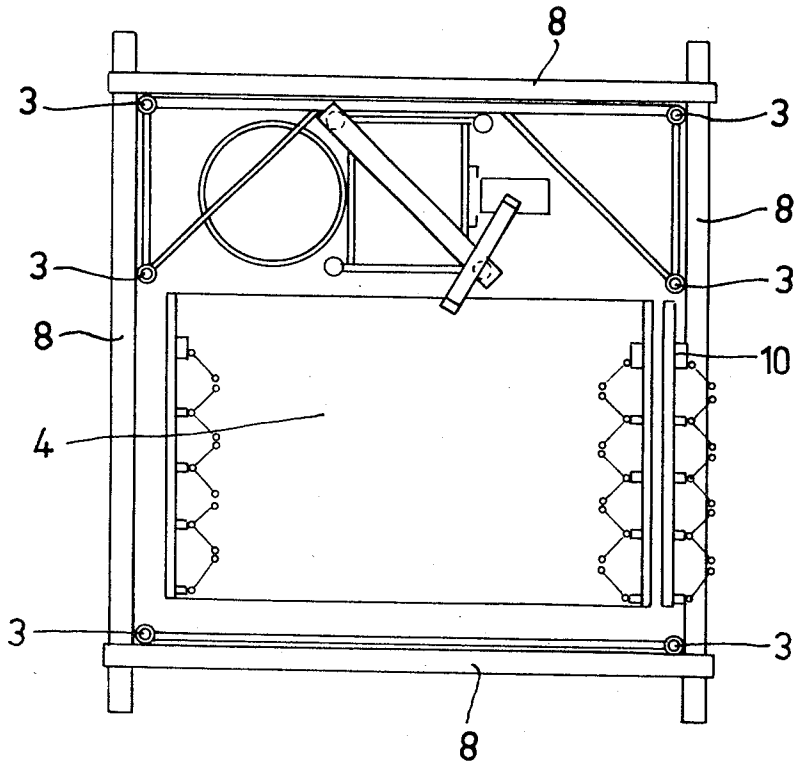


FIG. 3



HOIST ARRANGEMENT ON SHIPS

Modern super tankers have substantial dimensions, and their tanks usually have a depth of 25–30 m. During the construction period no hoists are applied within the hull, because they are difficult to transport into and out of the hull and also difficult to place.

These problems are eliminated by the hoist arrangement according to the invention, which is characterized in that the frame is arranged suspended in an opening in the deck of the ship, that the opening has a width such as to allow introduction of the frame into the opening and lowering to desired depth in the ship, that a part of the frame projects above the deck, and the frame is vertically adjustable in the opening in the deck. The hoist arrangement hereby is easy to mount in the ship and easy to remove when it is not required any longer. The hoist arrangement, furthermore, can easily be adapted to hulls of different depth.

One embodiment of a hoist arrangement according to the invention is described in the following, with reference to the accompanying drawing, in which

FIG. 1 shows a lateral view of the hoist arrangement mounted in the ship deck,

FIG. 2 shows the arrangement seen from the side, and

FIG. 3 shows a section along the line III—III in FIG. 2.

1 designates a frame assembled of a plurality of sections. The joints between the sections are designated by 2. The frame 1 comprises vertical tubes 3. Within the frame a lift cage 4 is guided and movable. The frame 1 is provided with lifting eyes 5 in a lifting yoke 6 mounted at the upper portion of the frame, by which eyes the frame in assembled state can be lowered by

means of a crane through an opening in a ship deck 7 to desired depth in the ship. The frame can be suspended in the deck 7 by means of beams 8 placed about the frame and adapted to be secured at suitable height in the tubes 3. The lowermost portion 9 of the frame 1 is intended to suspend freely above underlying parts of the ship or its bottom.

Doors 10 and stop level bars 11 are preferably movably adjustable along the frame 1 for easy adjustment to desired stop level heights.

The lift cage 4 is operated, for example, by rack or cable. Members comprised in the frame may, for example, be such as used at conventional building hoists.

What we claim is:

1. A vertical transport arrangement for use in ships prior to completion of the construction of the ship comprising in combination:

a. an elongated vertically extending framework having an upper end and a lower end that is suspended above the bottom of the ship,

b. a lift cage which is adapted to move up and down within said framework,

c. means for supporting said framework within an opening in the deck, said supporting means comprising support members that lie in a plane transverse to the longitudinal axis of said framework and which are located intermediate the upper and lower ends of said framework, and d. means located at the uppermost end of said framework for attachment to a hoist whereby the entire framework may be lifted out of the opening in a deck where it has been supported in a hanging condition by said support members.

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