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BOAT'S CRANE

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Fig. 1.

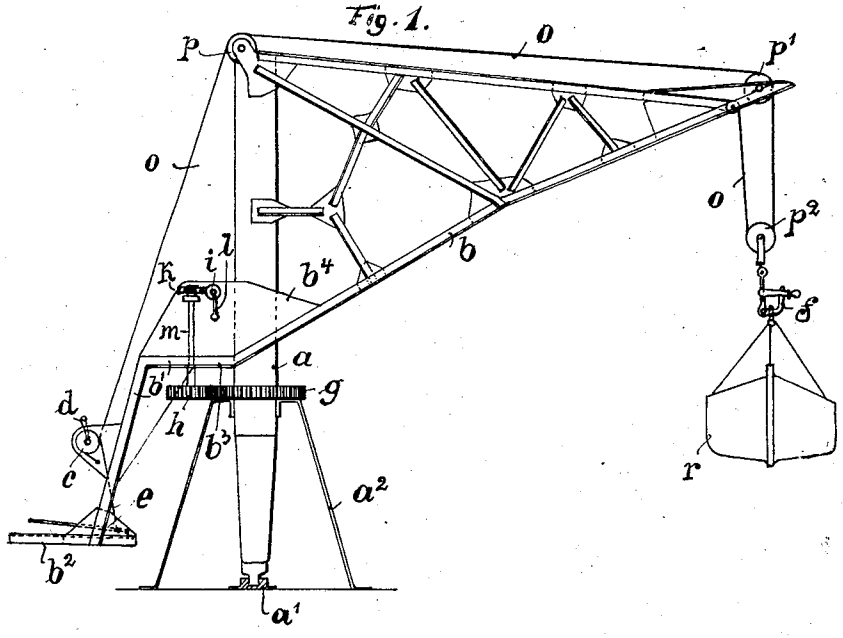
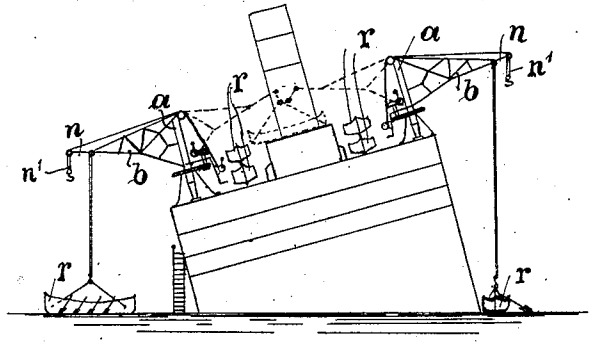


Fig. 2.



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BOAT'S CRANE.

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My invention relates to a boat's crane intended as a substitute for davits and consisting of a slewing crane composed chiefly of a vertical column, a jib consisting of trellis work, manually operated means for turning the column with the jib, and manually operated means for winding up the rope from which the boat is suspended. Owing to the jib consisting of trellis work, it can extend horizontally exceptionally far so that the boat is perfectly prevented from colliding with the hull of the ship even if this latter assumes a very oblique position, and, if desired, the jibs at the two sides of the ship may be elongated so much that it becomes possible to convey the boats from one side of the ship to the other side by means of the cranes concerned, as is all fully described hereinafter.

My invention is illustrated by way of example in the accompanying drawing in which Figure 1 is a side-view of a boat's crane constructed and arranged according to my invention, and Figure 2 is an end view of a ship provided with cranes of the novel kind, and being drawn to a greatly reduced scale.

The crane consists of a vertical column a supported by a foot-bearing a^1 and maintained in vertical position by a frame a^2. The jib b consists of trellis-work, and over it extends a steel-rope o supported by rolls p p^1 and carrying in its turn a roll p^2, the rolls p^1 p^2 and the appertaining piece of the rope o forming a kind of tackle. The roll o holds the known suspension hook f for the boat r.

Opposite to the jib b is a downwardly extending frame b^1, at the end of which is a platform b^2 for the operator of the crane. The frame b^1 is rigidly connected with the jib and turns with it and the column a. Near this latter the frame b^1 forms another platform b^3 for another operator, viz, one who is to turn the column with the jib etc., whereas the operator on the platform b^2 is to actuate a winch c attached to the frame b^1. The rope o is attached to this winch and actuated by it. d is the crank of the winch.

Another crank l, is attached to a frame-nember b^4 and connected with a bevel-wheel i which forms a member of a bevel-wheel gearing i, k, the member k of which is affixed to a vertical shaft m carrying at its lower end a cog-wheel h gearing with a larger-cog-wheel g secured to the frame a^2. It is obvious that the column a may be turned by means of said gearing l i k m h g, together, of course, with the jib and the boat, and it is further obvious that the boat may be let down or raised, as the case may be, by means of the winch and the rope.

The two jibs illustrated in Figure 2 are each provided with an extension piece n, from which is suspended a hook n^1, and the figure shows also that the boats to be conveyed by the cranes may be arranged one above the other. There are in Figure 2 two boats thus arranged at the left and two at the right of the stack, and the cranes are shown in full lines, as well as in dotted ones. The latter position is that in which the cranes lift the boats from the deck; it is a matter of course that the arrangement of the boats relatively to the cranes, in the longitudinal direction of the vessel, is such that suspension hooks f (Fig. 1) can be coupled with the boats.

The object of the extension n (Fig. 2) is to render possible on extreme broad ships conveying a boat from one side of the ship to the other side thereof, as indicated by dotted lines in Figure 2. The boat to be thus conveyed is attached to the appertaining jib after this latter has been suitably turned, then the jib is turned still more so as to extend completely in the direction to the other side, and the jib of the opposite side is so turned as to be apt to receive the boat from the first-mentioned jib, as shown by the dotted lines in Figure 2.

I claim:

1. A boat's crane apt for use as a substitute for davits and comprising a vertical column adapted to be turned, means for turning it, a jib consisting of trellis work, a frame connected with the column and extending in downward direction counter to the jib, two platforms carried by said frame, a gearing so arranged as to be in the range of an operator standing on one of said platforms and forming part of the means for turning said column, a winch so arranged as to be in the range of an operator standing on the other platform, and a rope, guide-rolls for it, and a tackle at the end of the jib, said rope being connected with said winch, as set forth.

2. A boat's crane apt for use as a substitute for davits and comprising a vertical column adapted to be turned, means for turning it, a jib consisting of trellis work,

an extension at the free end of the jib, a hook suspended from said extension, a frame connected with the column and extending in downward direction counter to the jib, two platforms carried by said frame, a gearing so arranged as to be in the range of an operator standing on one of said platforms and forming part of the means for turning said column, a winch so arranged as to be in the range of an operator standing on the other platform, and a rope, guide-rolls for it, and a tackle at the end of the jib, said rope being connected with said winch, as set forth.

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