J. E. ERICKSON.

APPARATUS FOR SUPPORTING AND LOWERING LIFE BOATS.

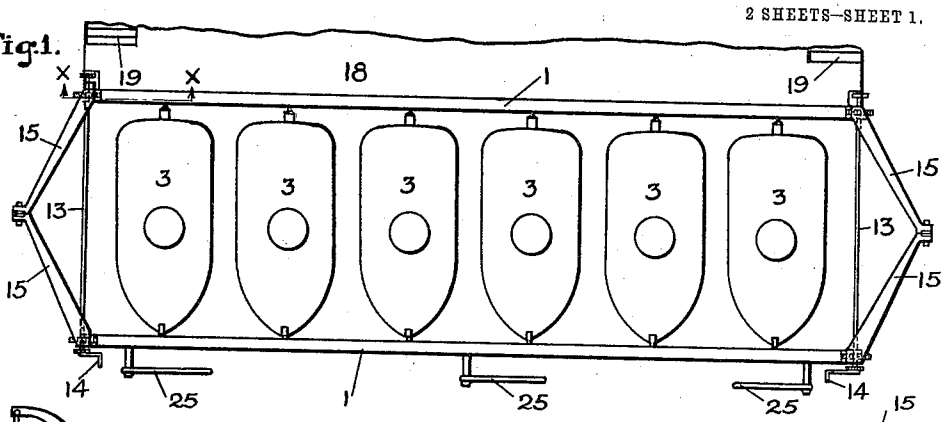
APPLICATION FILED JUNE 26, 1912.

1,043,915.

Patented Nov. 12, 1912.

2 SHEETS—SHEET 1.

Fig.1.



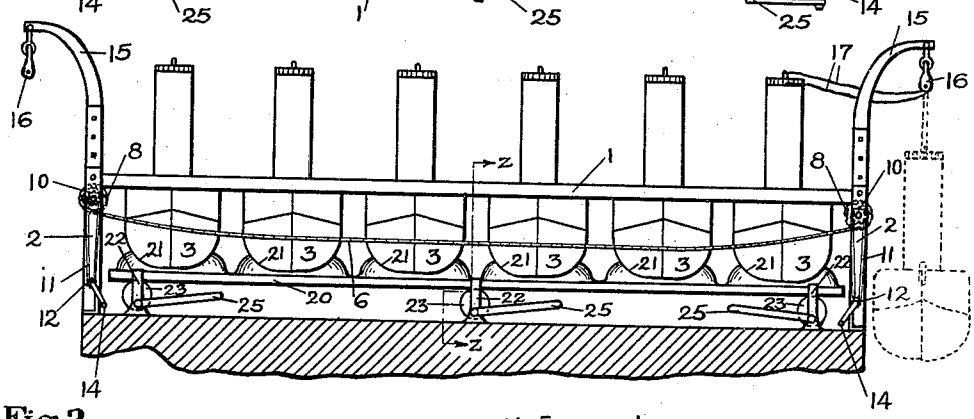


Fig.2.

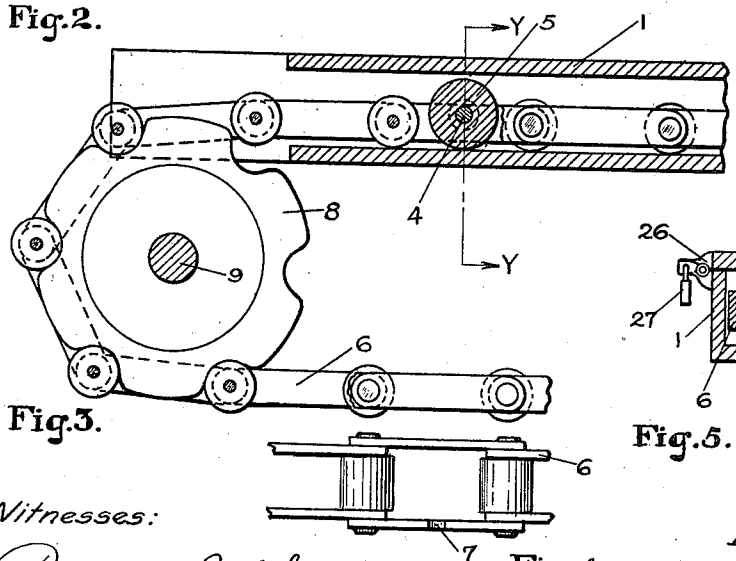


Fig.3.

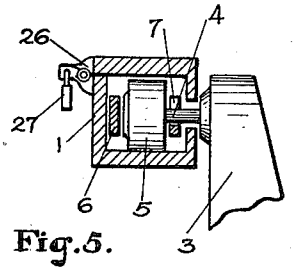


Fig.5.

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Fig.4.

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2 SHEETS—SHEET 2.

Fig. 6.

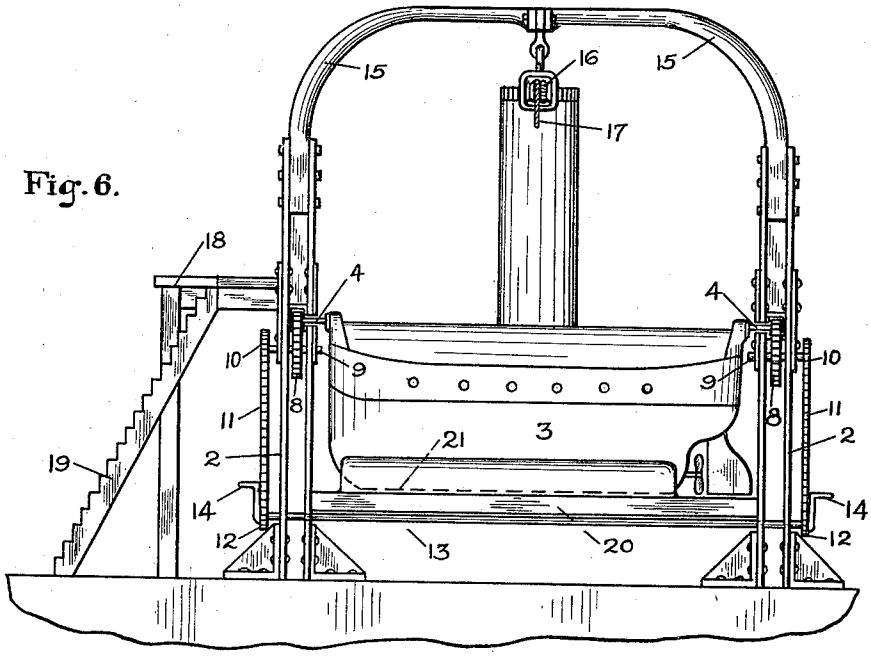
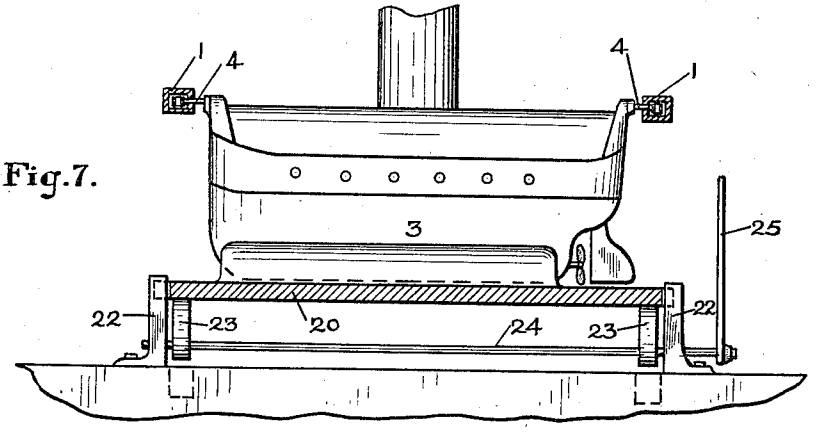


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHN E. ERICKSON, OF CHICAGO, ILLINOIS.

APPARATUS FOR SUPPORTING AND LOWERING LIFE-BOATS.

1,043,915. Specification of Letters Patent. Patented Nov. 12, 1912.

Application filed June 26, 1912. Serial No. 705,977.

To all whom it may concern:

Be it known that I, JOHN E. ERICKSON, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Apparatus for Supporting and Lowering Life-Boats, of which the following is a specification.

My invention relates to improvements in apparatus for supporting life boats upon a passenger ship and for lowering the same therefrom in case of emergency.

The object of my invention is the production of a life boat supporting and lowering device which will be of durable and economical construction, one which will be adapted to accommodate a large number of life boats in a comparatively small amount of space, and one whereby the life boats may be lowered with utmost ease and expedition.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a top plan view of a life boat supporting and lowering apparatus embodying my invention, Fig. 2 is a side elevation of the apparatus, the adjacent portion of the deck of the ship upon which the apparatus is arranged being shown in section, Fig. 3 is an enlarged sectional detail taken on substantially line *x*—*x* of Fig. 1, Fig. 4 is a fragmentary detail of the chain shown in Fig. 3, Fig. 5 is a sectional detail taken on substantially line *y*—*y* of Fig. 3, Fig. 6 is an end elevation of an apparatus, and Fig. 7 is a section taken on substantially line *z*—*z* of Fig. 2.

The preferred form of construction, as illustrated in the drawings comprises two spaced parallel channel rails 1 which are arranged upon the deck of the ship in conjunction with which the apparatus is used, extending transversely of the ship, as clearly shown in the several figures. The extremities of the rails 1 are supported in elevated position upon posts 2 secured rigidly upon the ship deck.

The life boats 3 employed in conjunction with this apparatus are arranged between the rails 1, each of the former being provided at the respective extremities thereof with outwardly extending studs 4 which pass through the openings provided in the adjacent sides of the rails, as clearly shown in Fig. 5. The outer ends of said studs are provided with rollers 5 which ride upon the lower portions of the rails 1, said rollers, as will be readily understood, being provided in order to alleviate friction.

The life boats are moved longitudinally of the rails through the medium of endless chains 6 which are mounted in said rails, as clearly shown in Figs. 3 and 5, the rollers 5 engaging the links of said chains and the studs 4 engaging notches 7 provided in the upper edges of the adjacent links in order to lock the life boats to said chains and so that when the latter are moved in the rails 1, said boats will be correspondingly moved. The chains 6 travel around sprocket wheels 8 provided at the terminals of rails 1. Said sprocket wheels are fixed to shafts 9 to which are also secured sprocket wheels 10 which are connected through the medium of chains 11 with sprocket wheels 12 provided upon shafts 13, there being one of the latter provided at each end of the apparatus operatively connecting the sprockets 13 provided at the corresponding ends of rails 1. With this arrangement it will be seen that the chains 6 will be connected for synchronous operation or movement so as to insure the opposite ends of the life boats being correspondingly moved as will be readily understood. The shafts 13 are provided at their extremities with crank handles 14 whereby the same may be manually rotated in order to effect longitudinal movement of the life boats toward release from the extremities of the rails 1.

Provided at the respective terminals of the rails 1 are outwardly curved davits or supporting arms 15 from which, when the apparatus is in operation, life boats may be lowered for use. The davits 15 at the corresponding ends of the device are joined together and a sheave 16 is suspended therefrom for employment in conjunction with a rope or cable 17 in suspending and lowering the life boats therefrom when released from the rails 1 through the medium of the chains 6, as above described.

A platform 18 is provided from which the passengers may readily board the life boats, which are supported in the rails 1 with their decks substantially coplanar with said platform. Steps 19 are provided lead-

ing from the deck of the vessel to said platform, as clearly shown in Fig. 6.

When the life boats are in use, the same are locked against relative longitudinal movement by means of an elongated locking member 20 which is positioned below the life boats, the upper side of member 20 being provided with pockets or recesses 21 for snugly accommodating the under sides of the life boats, as clearly shown in Fig. 2. The member 20 is mounted for vertical movement between guide posts 22 and the same is supported upon circular cams 23 mounted upon posts 22, the operating shafts 24 of cams 23 being provided with handles 25 whereby said cams may be manually rotated in order to effect elevation of the member 20 to operative position or lowering thereof to releasing position.

The upper sides of rails 1 are hinged at 26, as clearly shown in Fig. 5, so as to permit of the same being swung upwardly to permit of upward release of the rollers 5 and studs 4 from said rails. Such a construction is of advantage in the event of the ship sinking before the life boats have been released from the rails 1, and lowered in the manner above described. With the provision last described, upon the vessel sinking before the life boats have been released from the rails 1, the upper sides of said rails need only to be swung upwardly to permit of upward release of the life boats, and so that, as the vessel sinks, said life boats, as the same touch the water, will be released from the rails 1 and not carried down with the sinking vessel. However, the upper portions of rails 1 will be ordinarily locked in operative position by means of suitable locking devices 27, the locking devices being removed in case of emergency.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A device of the class described comprising two spaced supporting rails; a boat arranged between said rails and having studs at its ends resting upon said rails; means engaging said studs for moving said boat longitudinally of said rails; and boat-lowering means at the terminals of said rails, substantially as described.

2. A device of the class described comprising two spaced supporting rails; a boat arranged between said rails and having studs at its ends resting upon said rails; endless flexible means engaging said studs for moving said boat longitudinally of said rails; and boat-lowering means at the terminals of said rails, substantially as described.

3. A device of the class described comprising two spaced supporting rails; a boat arranged between said rails and having studs adapted to ride upon said rails; means engaging said studs for moving said boat longitudinally of said rails; means for locking said boat against longitudinal movement; and boat-lowering means at the terminals of said rails, substantially as described.

4. A device of the class described comprising two spaced supporting rails; a boat arranged between said rails and having studs adapted to ride upon said rails; means engaging said studs for moving said boat longitudinally of said rails; means adapted to releasably engage said boat for locking the same against longitudinal movement; and boat-lowering means at the terminals of said rails, substantially as described.

5. A device of the class described comprising two spaced supporting rails; a boat arranged between said rails and having studs at its ends adapted to ride upon said rails; and endless chains engaging said studs for moving said boat longitudinally of said rails, substantially as described.

6. A device of the class described comprising two spaced supporting rails; a boat arranged between said rails and having studs at its ends adapted to ride upon said rails; endless chains engaging said studs for moving said boat longitudinally of said rails; an operative connection between said chains for effecting synchronous movement thereof; and means for moving said chains, substantially as described.

7. A device of the class described comprising two spaced elevated channel rails; a boat arranged between said rails and having studs at its ends adapted to ride upon said rails in the channels thereof; flexible means arranged in said channels engaging said studs for moving said boat longitudinally of said rails; and means for moving said flexible means, substantially as described.

8. A device of the class described comprising two spaced elevated channel rails; a boat arranged between said rails and having studs at its ends adapted to ride upon said rails in the channels thereof; endless chains adapted to travel in said channels and engaging said studs for moving said boat longitudinally of said rails; and means for moving said chains, substantially as described.

9. A device of the class described comprising two spaced elevated channel rails; a boat arranged between said rails and having studs adapted to ride upon said rails in the

channels thereof; flexible means arranged in said rails engaging said studs for moving said boat longitudinally of said rails, the upper sides of said rails being movably secured so as to permit of upward release of said studs; and means for moving said flexible means to move said boat longitudinally of said rails, substantially as described.

10. A device of the class described comprising two spaced supporting rails; a plurality of boats arranged between said rails and having studs at their ends resting upon said rails; means engaging said studs for moving said boats longitudinally of said rails; boat-lowering devices at the terminals of said rails; and means adapted to releasably engage said boats to lock the same against longitudinal movement, substantially as described.

11. A device of the class described comprising two spaced supporting rails; a plurality of boats arranged between said rails and having studs at their ends resting upon said rails; means engaging said studs for moving said boats longitudinally of said rails; boat-lowering devices at the terminals of said rails; and vertically movable cam controlled means adapted to releasably engage against the under sides of said boats for locking the same against longitudinal movement, substantially as described.

12. A device of the class described comprising two spaced supporting rails; a plurality of boats arranged between said rails and having studs at their ends resting upon said rails; means engaging said studs for moving said boats longitudinally of said rails; boat-lowering devices at the terminals of said rails; and a platform arranged longitudinally of said rails for the accommodation of passengers for said boats, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN E. ERICKSON.

Witnesses:
JOSHUA R. H. POTTS,
JANET E. FARRELL.