No. 698,573. Patented Apr. 29, 1902.

W. W. SMITH.

MARINE RAILROAD CAR TRANSPORT.

(Application filed May 10, 1901.)

(No Model.) 2 Sheets—Sheet 1.

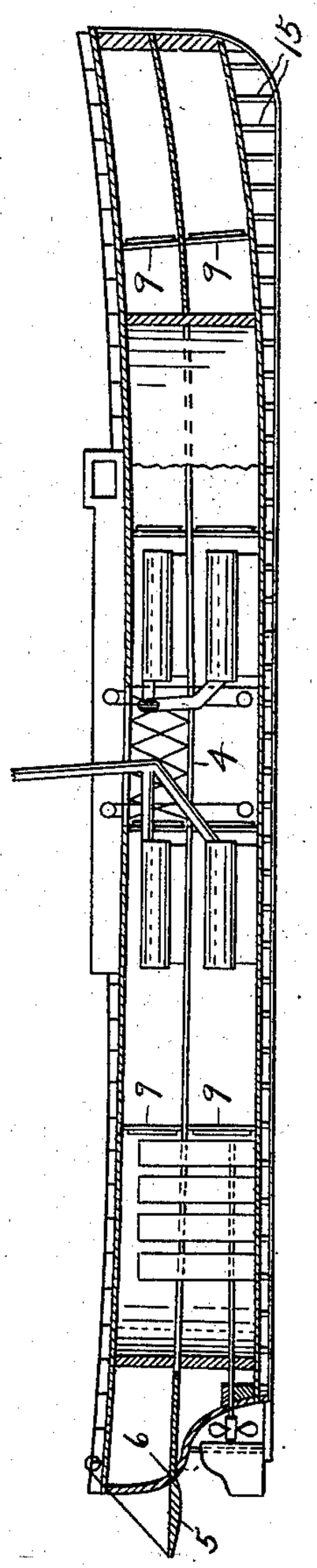

Fig. 1.

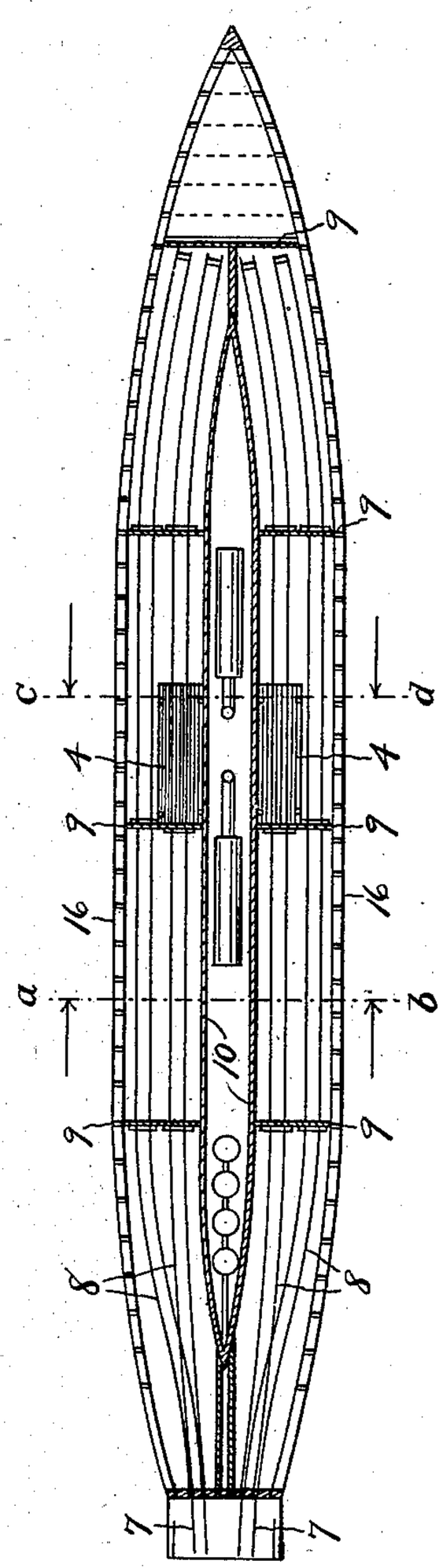

Fig. 2.

WITNESSES,

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R. M. Combs.

INVENTOR,

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Fig. 3.

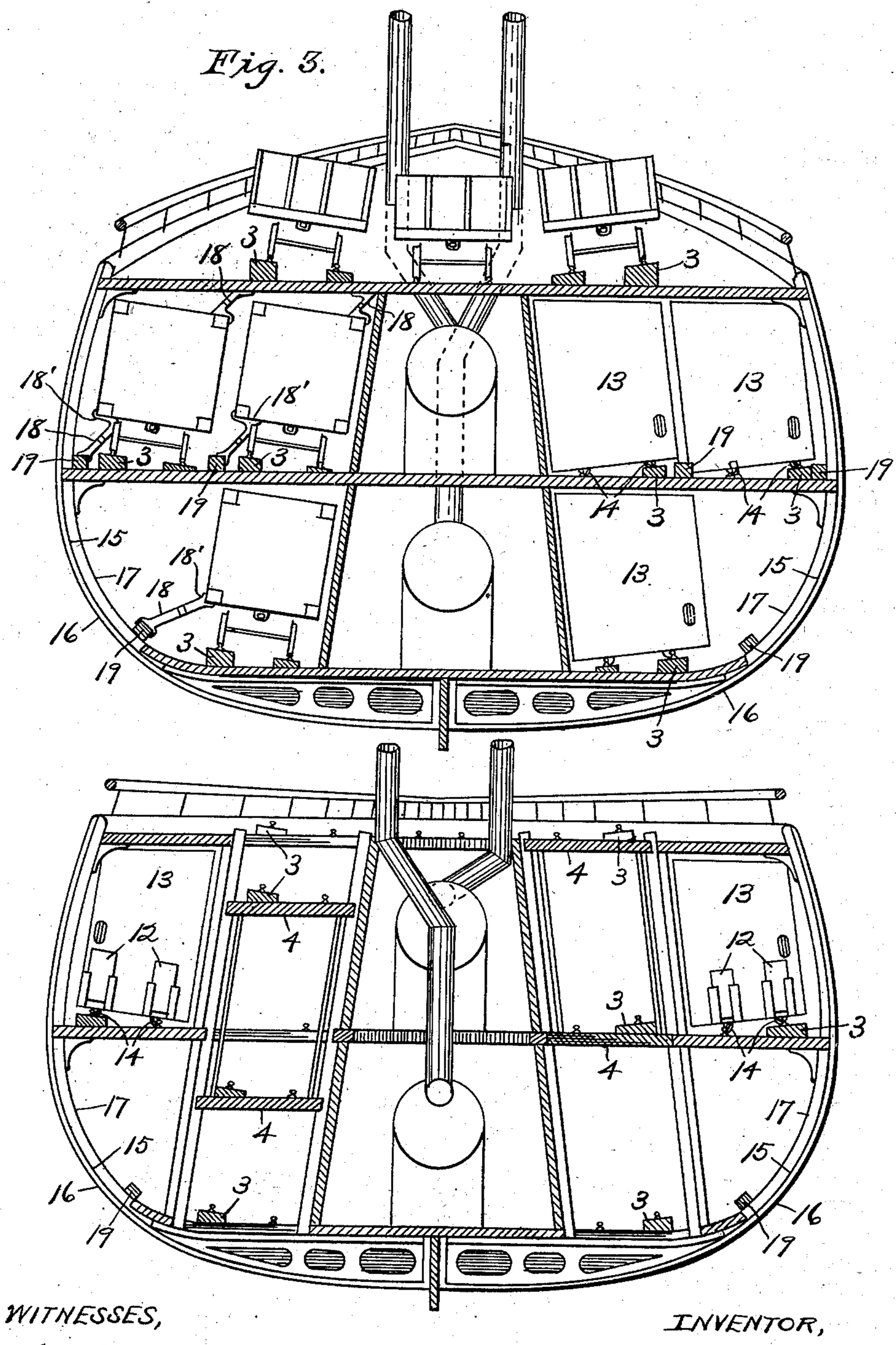

Fig. 4.

WITNESSES,

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UNITED STATES PATENT OFFICE.

WILLIAM W. SMITH, OF KANSAS CITY, MISSOURI.

MARINE RAILROAD-CAR TRANSPORT.

SPECIFICATION forming part of Letters Patent No. 698,573, dated April 29, 1902.

Application filed May 10, 1901. Serial No. 59,578. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. SMITH, a citizen of the United States, and a resident of Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Sea-Going Railroad-Car Transports, of which the following is a specification.

My invention relates to improved means for delivering freight in car lots over land and sea, said means comprising the usual railway-cars and an improved sea-going car-transport, which is described hereinafter.

I am not aware that large numbers of loaded cars have ever been carried across oceans, gulfs, or seas in boats, as many difficulties not found in lake and river transportation have applied to the former method of transportation.

The object of my invention is to effect an economical, rapid, safe, and adequate system of delivery of freight in car lots over land and sea, thereby obviating the present necessity of "breaking bulk" at the coasts and rehandling the merchandise packed in the cars.

With the above objects in view my invention consists in the construction more fully described hereinafter with reference to the accompanying drawings, in which—

Figure 1 is a central longitudinal section of a vessel constructed in accordance with my invention, the longitudinal bulkheads being partly broken away. Fig. 2 is a horizontal sectional plan of the vessel, taken a little above the second or middle deck. Fig. 3 is an enlarged transverse section of the vessel, taken on line *a b* of Fig. 2, omitting the cabins. Fig. 4 is an enlarged section taken on line *c d* of Fig. 2, omitting the cabins.

As shown in Figs. 3 and 4, the transport has three decks, each of which is provided with tracks for the cars carried as freight. The outer rails of each track are raised higher than the inner rails by any preferred means, as stringers 3 under the outer rails. Two large elevators 4 are provided for changing the cars from one deck to another. The machinery for operating the elevators is omitted for clearness. Any preferred elevator mechanism may be employed. The decks are higher at their ends than at their centers, as shown in Fig. 1. The purpose of this construction is to cause the cars to gravitate longitudinally toward the middle of the vessel.

A door 5, hinged at 6, at the stern of the vessel, at the middle deck, has two car-switches 7 thereon, each of which connects with a pair of tracks 8 on the middle deck, there being four tracks upon this deck. The upper deck contains three tracks, as shown in Figs. 3 and 4. Sufficient room for the cabins is reserved between the outer tracks and the side of the vessel on the upper deck.

The vessel is provided with the usual transverse bulkheads 9 and with longitudinal partitions 10 for forming water-tight compartments in the hold. In order to permit the cars to pass through the transverse bulkheads 9, a large opening is cut in each bulkhead, and a door 13 is hinged at the side of each opening. Each door or its jamb, or both, carries a facing of rubber, so that when the doors are closed and held tight by suitable devices the compartments between the bulkheads are water-tight. Where the tracks pass through one of the bulkheads, the rails are cut or separated for about an inch to make room for water-tight slides 12, mounted on each door 13, which slides when run down between the rails against the deck close the notches 14 cut in the door-frame for the flanges of the car-wheels to pass through. To prevent the cars from tipping when the vessel rolls and pitches, I provide jack-screw braces 18, interposed between the corners of the cars and heavy longitudinal stringers 19, the braces being secured to the latter. When the cars are to be released, the jaws 18′ of said braces are retracted by turning the screws, and the cars may then pass clear of the braces.

The hull is composed of the usual bent frames 15, an outer sheathing 16, secured thereto, and an inner sheathing 17, secured indirectly to the frames 15 in any suitable manner. An air-space is thus maintained around the hold of the vessel, which being a poor conductor of heat prevents the heat of the sun and water from raising the temperature of the air in the hold, which is kept down by any preferred refrigerating system. The perishable freight is thus preserved at a minimum cost.

I am aware that refrigeration has been employed heretofore in ocean vessels; but it has never been employed in sea-going railroad-car transports. Hence my claim to this feature as included in the appended claims.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A sea-going railroad-car transport having sheared decks, car-tracks thereon, the outer rails of said tracks being higher than the inner rails, and jack-screw braces for holding the cars stationary and bracing the vessel, substantially as described.

2. In a sea-going railroad-car transport having curved and sloping sides and bottom, and a plurality of decks for cars having inclined car-tracks thereon, the combination of a door at the stern of the vessel, hinged at the middle deck and level therewith when lowered, car-tracks on said door leading to the tracks on the middle deck, elevators for transferring cars from deck to deck, jack-screw braces for holding the cars in position and forming braces for the frame of the vessel, and bulkheads having doors therein for passage of cars; substantially as described.

3. In a sea-going railroad-car transport, the combination, with two adjacent decks, of a car-track upon the lower deck, adapted to carry cars, a stringer adjacent and parallel to said track, a jack-screw brace 18′ secured to said stringer, and a supplemental brace 18 secured to and depending obliquely from the upper deck; said braces forming, with a car, a continuous strut for the decks, substantially as described.

4. In a sea-going railway-car transport, having a plurality of decks, car-tracks secured to said decks, admitting ingress and egress of the cars to and from the transport, and braces forming with the cars, continuous struts for the decks, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM W. SMITH.

Witnesses:

O. M. VAN DORSTON,

K. M. IMBODEN.