(No Model.)

J. R. OLDHAM.

CARGO TRIMMING CARRIAGE FOR VESSELS.

No. 600,594. Patented Mar. 15, 1898.

Fig. 1.

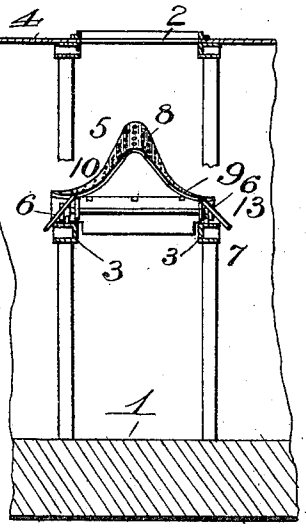


Fig. 2.

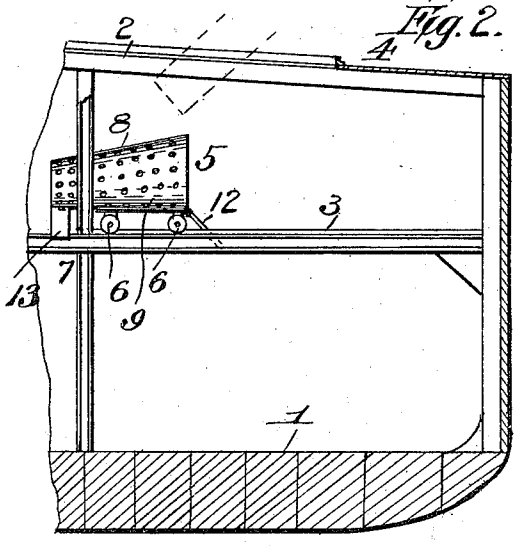


Fig. 3

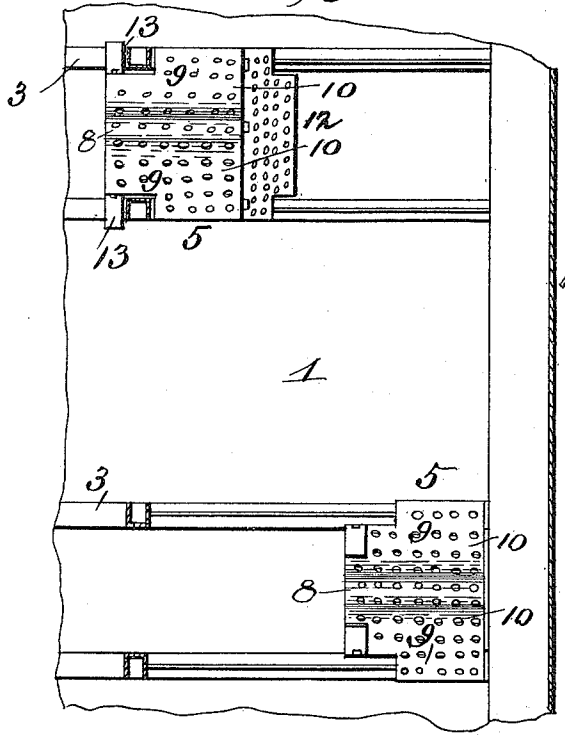


Fig. 4

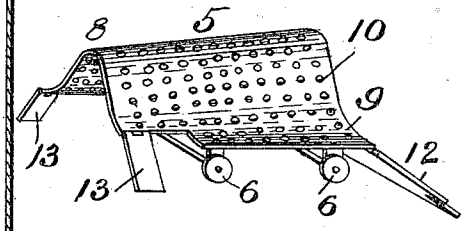
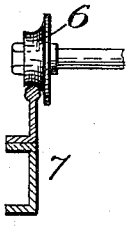


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSEPH R. OLDHAM, OF CLEVELAND, OHIO.

CARGO-TRIMMING CARRIAGE FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 600,594, dated March 15, 1898.

Application filed June 8, 1897. Serial No. 639,884. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. OLDHAM, a citizen of the United States, and a resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Cargo-Trimming Carriages for Vessels; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

When ships are loaded by chutes with such cargoes as ore or coal, most of the cargo falls down about the center of the hatchways and about the center line of the ship. This is objectionable because it renders the cargo more liable to shift when the vessel is rolling, and the distribution of the cargo being so limited is liable to strain the hull.

The object of my invention is to provide improved means whereby the cargo will be distributed in fore-and-aft and thwartships directions, while a certain amount of the cargo will fall into the hold at about the center of the hatchway and the center of the vessel, thus rendering manual trimming as at present commonly practiced unnecessary.

The invention consists, essentially, in an arch or carriage adapted to be moved underneath the hatchway of a vessel and so constructed that the cargo dumped thereon from a chute will be distributed in fore-and-aft and thwartship directions, as hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a portion of a ship or vessel, showing my improvement applied thereto. Fig. 2 is a transverse section. Fig. 3 is a plan view. Fig. 4 is a perspective view of the movable arch or carriage. Fig. 5 is a detail view of the track.

In the said drawings the reference-numeral 1 designates the hull of a vessel, 2 the hatchway, 3 the main beams, and 4 the spar-deck, which may be of any ordinary or suitable construction. The numeral 5 designates the movable trimming arch or carriage, preferably provided with wheels 6, which travel on transverse angle-bars or tracks attached to the beams 7. This trimming arch or carriage will be about the same breadth in a fore-and-aft direction as the hatchway, and in a thwartship direction will be about one-fourth the length of the hatchway. In longitudinal section or in a fore-and-aft direction I make the top of the arch or carriage convex, as seen at 8, and the bottom I make concave, as seen at 9, with a plane surface 10 between the top and bottom, or the total section may be formed of radii of different lengths. In transverse section (or in thwartship direction in the vessel) I make the side of the arch nearest the ore-dock higher than the side farthest away from the dock, so as to cause the cargo to flow over toward the opposite side of the hull to that from which the cargo comes. At the inner side of the carriage or arch or that which is nearest the dock I provide a hinged "bumper-plate" 12, the sides of which are notched so as to allow the plate to fall down between the beams and direct the cargo to the side of the vessel which is nearest the dock. At the opposite side two channel-plate extensions 13 are hinged to the carriage to lead the cargo in a fore-and-aft direction over the beams toward the bow and stern.

The shell of the carriage has suitable slots or circular perforations—say from about one inch to six inches in diameter—cut in it, so as to allow a portion of the cargo to fall through, while the remainder is carried over the ends and sides, by which means some kinds of ore or coal may be better distributed without the trouble of hauling the carriage from near the center of the hatchway. The perforations will also lighten the carriage.

My invention is not limited to the precise dimensions here delineated nor to the declivity of the top of the carriage, as this may be readily varied by changing the diameters of the front and back wheels. There is one of these movable carriages provided for each hatchway, and when not in use they are drawn back to either side of the vessel, so as to be out of the way, as seen at the lower part of Fig. 3. When the vessel is to be loaded, the carriage is drawn out under the hatchway, and the cargo being dumped thereon from a chute will be distributed fore-and-aft and thwartships of the vessel, as well as about the

center. The said carriage may be moved toward or away from the hatchway by manual or other power.

Having thus fully described my invention, what I claim is—

1. In a vessel, the combination with the transverse rails located below the deck, of the arch or carriage adapted to travel thereon, said carriage being inclined from end to end, and curved downwardly and outwardly from the center to each side, substantially as described.

2. In a vessel, the combination with the transverse rails located below the deck, of the arch or carriage provided with wheels adapted to travel on said rails, said carriage being inclined from end to end, and curved downwardly from the center to each side, and formed with perforations, substantially as described.

3. The combination with a vessel, of the movable arch or carriage, the upper face or surface of which is convexed at the top and concaved at the sides, and provided at one side with a hinged plate formed with notches in the sides or ends, substantially as described.

4. The combination with a vessel the main beams and the tracks or rails secured thereto, of the movable carriage or arch adapted to travel on said rails, the surface or upper side of which is convexed and concaved as described, the hinged notched plate at one side of said carriage and the fore-and-aft-extending plates hinged to the opposite side, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOSEPH R. OLDHAM.

Witnesses:

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