

No. 613,906.

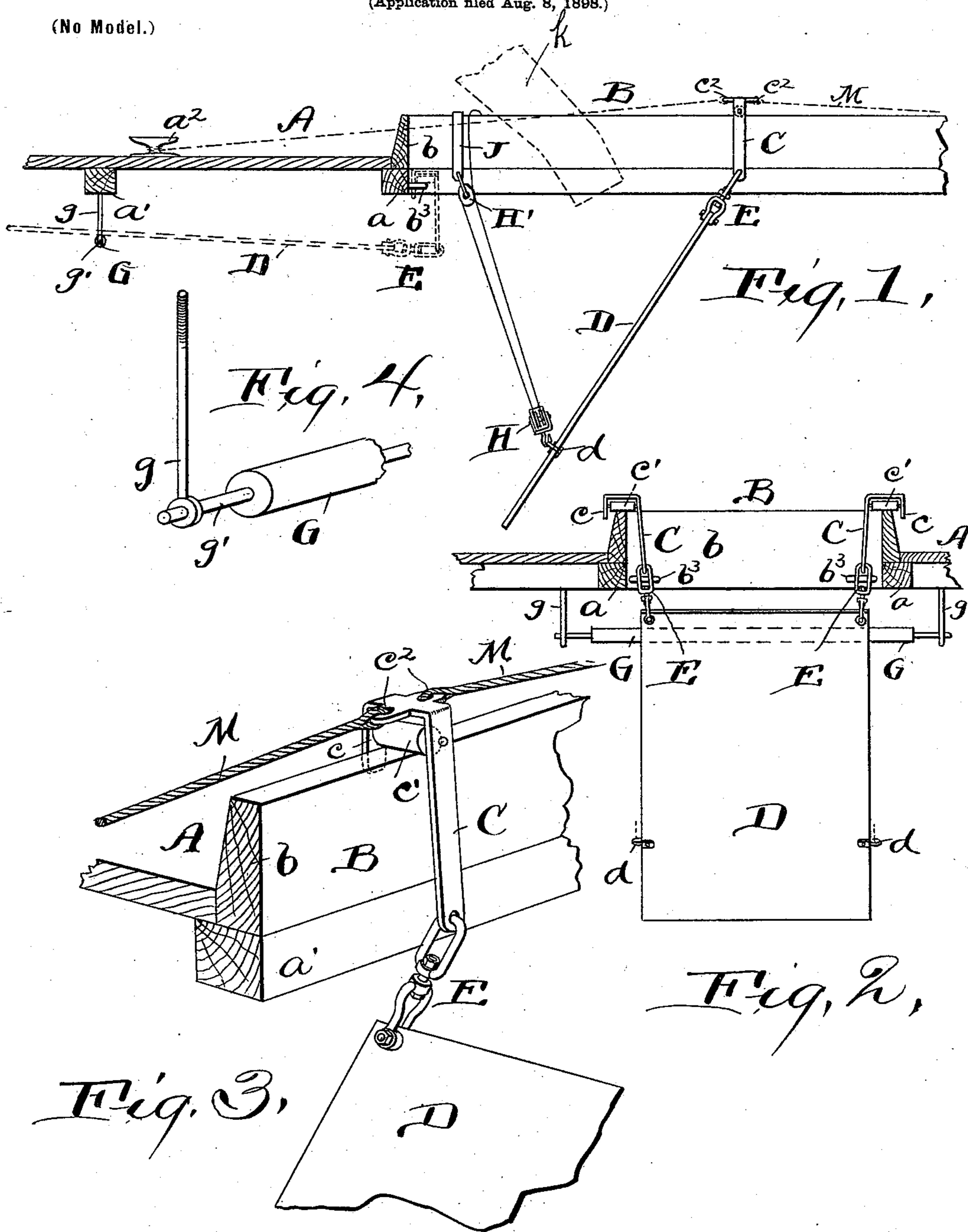
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W. H. MACK.

TRIMMING ATTACHMENT FOR ORE VESSELS.

(Application filed Aug. 8, 1898.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## TRIMMING ATTACHMENT FOR ORE VESSELS.

SPECIFICATION forming part of Letters Patent No. 613,906, dated November 8, 1898.

Application filed August 8, 1898. Serial No. 688,024. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. MACK, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Trimming Attachments for Ore Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The invention relates to a device adapted to be attached to an ore-carrying vessel in either of two general positions—viz., first, in such relation to the hatchway that ore or other loose material which is discharged from a spout or chute through the hatchway is distributed toward the side of the vessel, and, second, in a position adjacent to the hatchway and between it and the sides of the vessel where said device may be safely carried when not in use.

The invention consists in the construction and combination of parts constituting the device itself, whereby it is adapted to be held in said positions, and in the means for holding it in said positions.

In the drawings, Figure 1 is a transverse vertical section through the deck and one hatchway in a vessel, showing in full lines the device in position to distribute the ore and in dotted lines the device in position in which it is carried when not in use. Fig. 2 is a longitudinal vertical sectional view. Fig. 3 is a perspective view of one hanger, the upper corner of the deflecting-plate, and the swivel-shackle connection between them. Fig. 4 is a perspective view of one end of the device which supports the deflecting-plate when the same is not in use.

Referring to the parts by letters, A represents the deck of an ore-carrying vessel; B, one of the hatchways thereof; b, the hatch-coaming, and  $a$   $a'$ , respectively, two of the deck-beams.

C C represent two hangers, the upper ends of which are bent back into parallel relation with the body of the hanger, thereby forming a hook c, which is adapted to take over the upper edge of the hatch-coaming. In each hook a roller  $c'$  is mounted, which is adapted to ride on the top edge of the coaming. Two eyes  $c^2$   $c^2$  are provided on the top of the hook, and to these eyes the lanyards M

are attached. The other ends of these lanyards may be attached to cleats  $a^2$  or some other suitable devices on either side of the hooks, whereby said hangers are held in proper position relative to the coamings.

D represents a deflecting-plate, which is preferably made of steel. It is suspended at its upper edge from the two hangers C C by means of the swivel-shackles E E, which permit the plate to be held in various angular positions relative to the hangers. At some convenient point on the side edges of this plate and preferably near its lower end are the eyes  $d$   $d$  or other means for attaching a rope or tackle-block H. Another tackle-block H' is suspended by a hook J from the hatch-coaming adjacent to each side of the plate D, whereby the lower end of said plate D may be raised or lowered to and held in various angular positions, whereby the plate will deflect the ore which falls into it from the spout k and distribute it evenly between the hatchway and the side of the vessel.

g g represent the supports for a horizontal roller G. These supports, as shown, are eye-bolts which are secured to a deck-beam  $a'$  between the side of the hatchways and the side of the vessel. These eyebolts support a horizontal rod  $g'$ , upon which the roller G is mounted.

At the side of the hatchway two straps or hooks  $b^3$  are secured, preferably to the deck-beam  $a$ . These straps are adapted to be engaged by the ends of the hooks c on the hangers C, whereby said hangers will be supported. Before the hooks can be engaged with said straps it will be necessary to turn the hangers into positions at right angles to the positions they occupy when supporting the deflecting-plate in its operative position, as shown in Fig. 2. The swivel-shackle connection between the hangers and the plate permits the hangers to be so turned. When the vessel has been loaded, the lower end of the deflecting-plate D is placed over the roller G and moved toward the side of the vessel, and the hangers C C are hung in the straps  $b^3$ , as shown by dotted lines in Fig. 1. In this position the plate and its connections are safely held during the voyage of the vessel and in such manner that there is no danger that it can damage the vessel.

I am aware that it is not new to employ a deflecting-plate or its equivalent as a means for directing ore discharged from a spout toward the sides of the vessel, and therefore  
 5 do not claim the same as my invention; but

What I do claim is—

1. An attachment for ore-carrying vessels, consisting of the combination with two hangers having rollers mounted in their upper  
 10 ends, which rollers are adapted to ride on the hatch-coaming, of a deflecting-plate, and swivel-shackles connecting the upper edge of said plate with said hangers, with means for preventing the movement of said hangers  
 15 along the hatch-coaming, and means for upholding the lower end of said deflecting-plate, substantially as and for the purpose specified.

2. An attachment for ore-carrying vessels, consisting of the combination of two hangers  
 20 each having its upper end bent into hook form, a roller mounted in each hook and adapted to ride on the hatch-coamings, and two eyes on the upper end of each hook, a deflecting-plate, and swivel-shackles con-  
 25 necting the upper edge of said plate with the lower ends of said hangers, with lanyards connected with the eyes on the hanger, and means connected with the sides of the deflecting-plate whereby said deflecting-plate is  
 30 upheld in the desired position, substantially as and for the purpose specified.

3. In an ore-carrying vessel, the combination of the two hangers having hook-shaped

upper ends, a deflecting-plate, and swivel-shackles connecting the upper edge of said  
 35 plate with the lower ends of said hangers, with straps fixed to the sides of the hatchway and adapted to be engaged by the ends of the hooks on said hangers, and a horizontal support secured below the deck between  
 40 the hatchway and the sides of the vessel, on which the lower end of said deflecting-plate is adapted to rest when the hangers are supported by said straps, substantially as and  
 45 for the purpose specified.

4. In an ore-carrying vessel, the combination of the two hangers having hook-shaped upper ends, a deflecting-plate, and the swivel-shackles connecting the upper edge of said  
 50 plate and the lower ends of said hangers, with two depending eyebolts secured to a deck-beam between the sides of the hatchway and the sides of the vessel, a roller mounted on a bar secured in the lower ends of said eyebolts, and two straps secured to the ends of  
 55 the hatchway and adapted to be engaged by the hook ends of said hangers when the lower end of said plate rests upon said roller, substantially as and for the purpose specified.

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

WILLIAM H. MACK.

Witnesses:

PHILIP E. KNOWLTON,  
 E. L. THURSTON.