May 10, 1932. R. HILL 1,858,046

RUDDER POST ATTACHMENT

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Fig. 1.

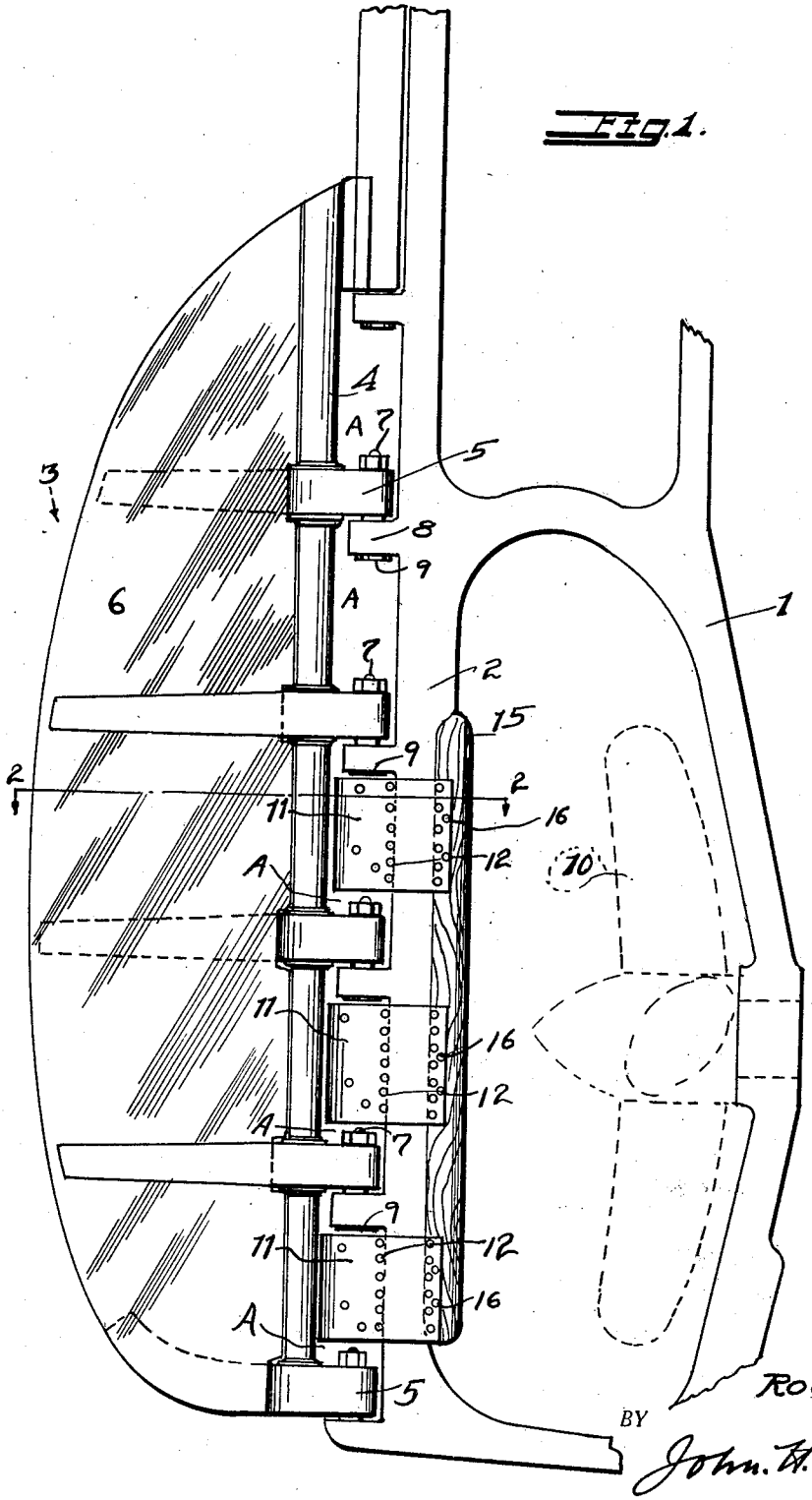

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Fig. 2.

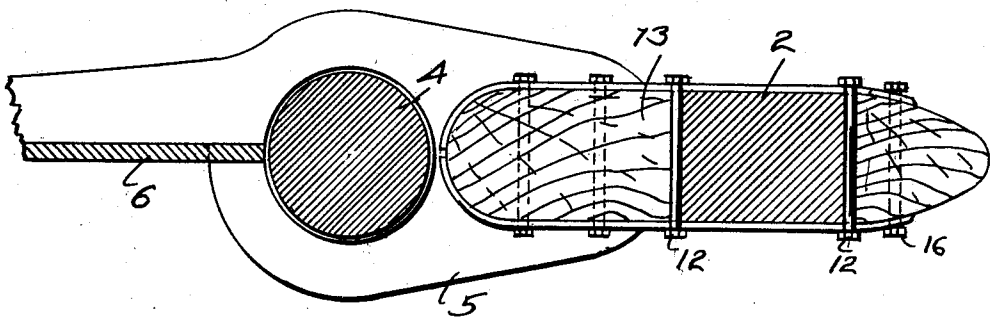


Fig. 3.

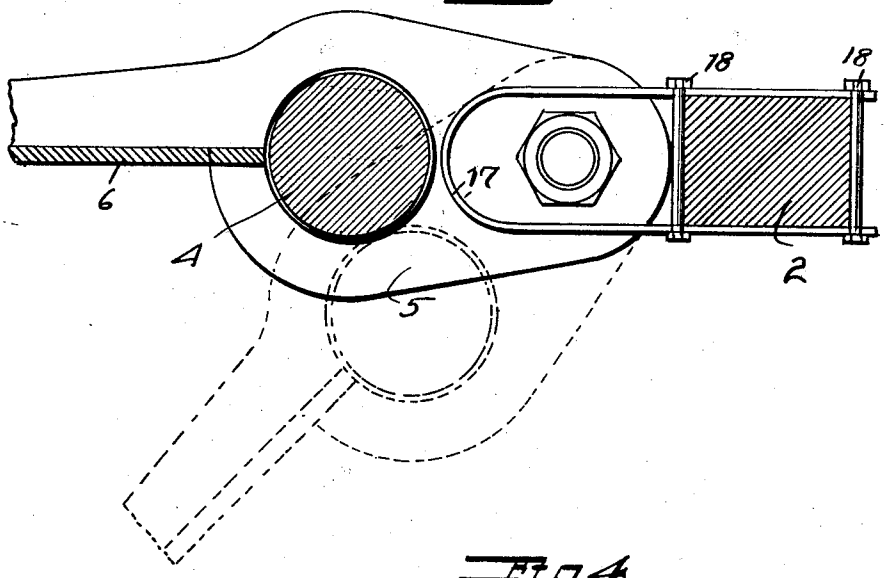
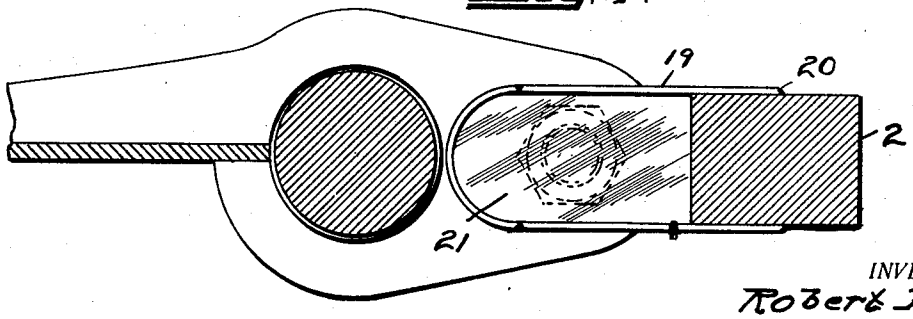


Fig. 4.



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UNITED STATES PATENT OFFICE

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RUDDER POST ATTACHMENT

Application filed August 26, 1931. Serial No. 559,461.

This invention relates to rudder post attachments, and more particularly to attachments for the rudder post of ships to fill the space between the rudder post, and the rudder stock, and the object of the invention is to provide an attachment to the rudder post whereby the spaces between the rudder post, and the rudder, and between the pivot bearings of the rudder, will be filled so that the water thrown back by the propeller will not deflect through these spaces, whereby the efficiency of the rudder is improved.

Another object of the invention is to provide a device of this kind to shield the spaces between the rudder post, and the rudder, which may be removed readily whenever it becomes necessary to unship the rudder.

Another object is to provide a device of this kind of strong and simple construction. Other objects will appear to those skilled in the art to which it appertains as the description progresses.

An embodiment of the invention is shown in the accompanying drawings in which the same reference numeral is applied to the same portion throughout the several views and of which there may be modifications:

Figure 1 is a view of a portion of the stern frame of a ship, including the rudder post.

Figure 2 is a section taken on line 2—2 of Figure 1 showing the attachment in position.

Figure 3 is a modified form shown in section, in about the same position as that of Figure 2.

Figure 4 is still another modified form of the attachment shown in the same position.

The numeral 1 indicates the stern frame of a ship. The portion 2, of the frame is the rudder post in which the rudder 3, is mounted. The rudder consists of the stock 4, the pivot or hinge members 5, and plate 6.

The hinge members are hung on what are called, in navigation terms, pintles 7, on the supports 8, of the rudder post.

The portion of the pintle having a bearing in the supports 8, are tapered and have suitable bushings, and a plate 9, acts to hold the bushings in place. The rudder is lifted up with the pintles to clear the supports when it is required to remove the rudder, and this action requires the space A clearance for the hinge member 5, and this space is a disadvantage in the running of ships on account of the swift currents, and eddies that flow through the space from the propeller 10.

The steering action of the rudder is reduced in efficiency by these spaces, and to remedy this, the attachment plate 11, bent U-shaped and projecting into the space to practically fill it, is clamped on the rudder post 2, by means of bolts 12. A suitable filler 13, of wood is used to increase the strength of the plate 11, bolts 14, retain the filler.

A rounded up member 15, of wood assists in reducing the eddy currents around the rudder post, and is held in place by bolts 16.

In the form of the invention shown in Figure 3, no filler is used, or end strip, the U-shaped attachment 17, being clamped on the rudder post by the bolts 18.

In the form shown in Figure 4, the U-shaped member 19 is held in place by spot welding as at 20, but is inclosed top and bottom by plates 21. In all the forms of the invention the attachment can be removed easily as will be understood by those familiar with this construction.

It will be seen from the above that a very simple and effective means for the purpose has been evolved.

Having thus described my invention what I desire to secure by letters patent of the United States is as follows but modifications may be had in carrying out the invention as shown in the drawings and particularly described form thereof within the purview of the annexed claims:

I claim:

1. A rudder post attachment of the class described comprising a ship having a rudder post, a rudder, hinge members for said rudder post and said rudder, detachable means for filling the space between the rudder post, the rudder and the hinge members.

2. A rudder post attachment of the class described comprising a rudder post on a ship, a rudder on said ship, hinge members

adapted to pivot said rudder on said rudder post, detachable means for filling the space between the rudder post, the rudder, and the hinge members, said means being attachable to the rudder post.

3. A rudder post attachment of the class described comprising a U-shaped member adapted to be attached to the rudder post, and having its closed end project adjacent the rudder stock.

4. A rudder post attachment of the class described comprising a ship's rudder post, a rudder, hinge members connecting said rudder to said rudder post, a detachable shield to fill the space between the rudder post, the rudder and the hinge members.

5. A rudder post attachment comprising a plate bent to form side members and a closed end, said side members being adapted to be clamped to the rudder post, and the closed end projecting into the space between the rudder post and the rudder.

6. A rudder post attachment of the class described, comprising a ship, propelling means for said ship, a rudder post outside of said propelling means, a rudder pivoted on said post, and detachable means for filling the space between said rudder and said rudder post.

7. A rudder post attachment comprising a ship's propeller frame including a rudder post, a rudder supporting means on said rudder post, a rudder including a stock, hinge members on said rudder, pintles for connecting said hinge members to said supporting means, and detachable fillers for the space between said stock, the rudder post, the hinge members, and supports.

ROBERT HILL.