June 30, 1936. W. C. DEAN 2,045,587

BOAT DAVIT

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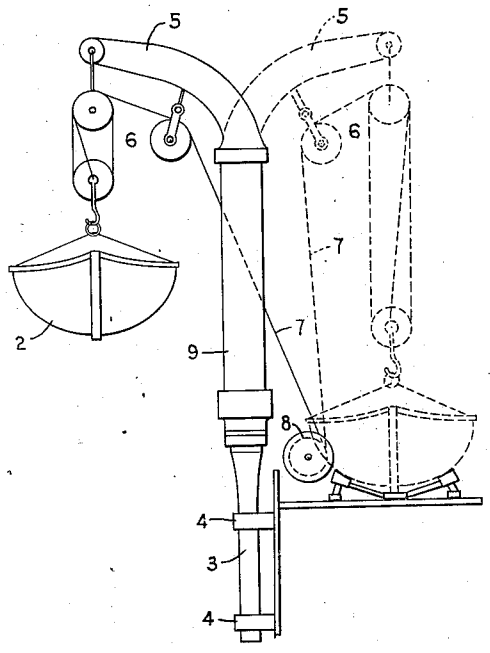


FIG. 1

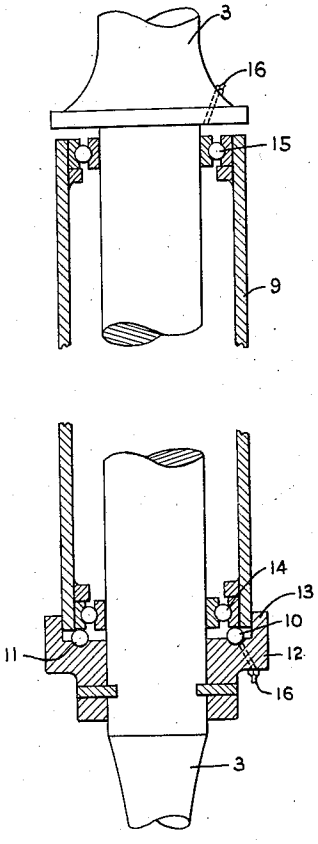


FIG. 2

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BOAT DAVIT

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3 Claims. (Cl. 9—22)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

This invention relates to a davit or the like wherein the fall of the hoisting line is likely to be swung against a portion of the davit structure and has for its object to provide means to prevent chafing of the rope when the fall is drawn across the davit in frictional contact therewith.

In the drawing:

Fig. 1 is a side elevational view of the present invention showing the position of the fall when the boat is suspended outboard and showing in dotted lines the relations of the several parts after the boat has been swung inboard;

Fig. 2 is a detail view, with parts in section, of my improved davit.

Rotating boat davits usually chafe the rope fall when the davit is swung into certain positions since the rope must wrap partially around the vertical shaft of the davit. This also causes increased friction which adds to the effort required in hoisting the boat. My improved davit eliminates both of these objectionable results.

In Fig. 1 the shaft 3 of the davit is rotatably mounted in a suitable support 4. The upper portion 5 carries the usual tackle 6 from which the fall 7 passes to a winch or snatch block 8 adjacent the foot of the davit. It is apparent that when the davit is swung outboard, as shown in full lines in Fig. 1, the fall 7 is brought into frictional contact with the davit, since the block 8 must be so positioned as to permit of swinging the davit to the full inboard position and must not be so spaced from the davit longitudinally of the ship that it exerts a fore and aft component of pull on the davit.

Around the shaft of the davit and extending over such length thereof as might possibly be contacted by the fall 7 I dispose a sleeve 9 whereof the thrust due to weight is taken by antifriction bearings 10 disposed in a groove 11 in collar 12 that is fixed to the davit shaft and has an upwardly extending inner flange 13 overlapping the lower end of sleeve 9. Lower antifriction bearings 14 and upper antifriction bearings 15 are disposed between the sleeve 9 and the davit 10 to insure maximum ease of rotation of the sleeve 9. Fittings 16 for pressure lubrication of the bearings are preferably provided. It is apparent that when the fall 7 moves across the sleeve 9 in frictional contact therewith the sleeve will rotate freely and thus will prevent chafing of the rope and also eliminate the frictional addition to the load in hoisting that is inevitably present when the old structure of davit is used.

While my invention has been shown and described as embodied in a boat davit for purposes of setting forth the novel features thereof, it is obvious that its usefulness is not limited to the particular case mentioned but is susceptible of application to numerous uses of like nature.

The invention described herein may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

I claim:

1. The combination with a davit mounted at one end with its long axis vertical to rotate for swinging an object transversely past its axis, hoisting tackle on said davit at the other end thereof, and a rotatable element fixed adjacent the said one end with a fall of said tackle passing to said element, of a collar fixed on said davit, said collar having a longitudinally extending peripheral flange and an annular groove adjacent the base of said flange that forms a race for antifriction bearing elements, a sleeve disposed around said davit over the major portion of the length of the shaft of the davit, antifriction elements in said groove disposed to support the thrust of said sleeve, and antifriction bearings in said sleeve adjacent the ends thereof between said sleeve and the davit.

2. The combination with a davit mounted at one end with its long axis vertical to rotate for swinging an object transversely past its axis, hoisting tackle on said davit at the other end thereof, and a rotatable element fixed adjacent the said one end with a fall of said tackle passing to said element, of a sleeve disposed around said davit over the major portion of the length of the shaft of the davit, antifriction bearings between said sleeve and the davit, a collar fixed on said davit and having a flange extending over one end of said sleeve, and antifriction bearings between said collar and said sleeve to take the thrust of said sleeve.

3. The combination with a davit mounted at one end with its long axis vertical to rotate for swinging an object transversely past its axis, hoisting tackle on said davit at the other end thereof, and a rotatable element fixed adjacent the said one end with a fall of said tackle passing to said element, of a collar fixed on said davit, said collar having a longitudinally extending peripheral flange, and a sleeve rotatable independently of the shaft of said davit disposed around said shaft over the major portion of the length of said shaft with one end of said sleeve disposed within said peripheral flange.

WALTER C. DEAN.