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T. H. WILLS

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ANCHOR HOIST

Filed Sept. 26, 1928

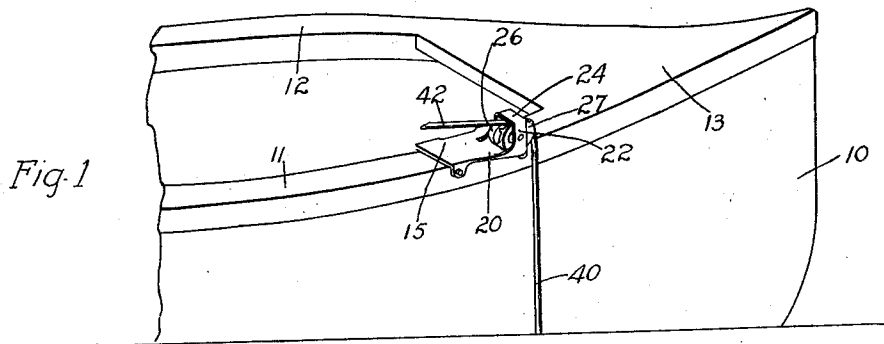
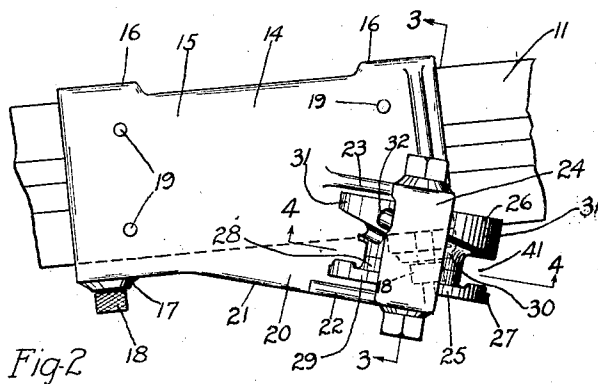
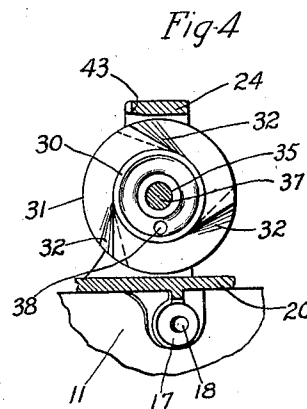
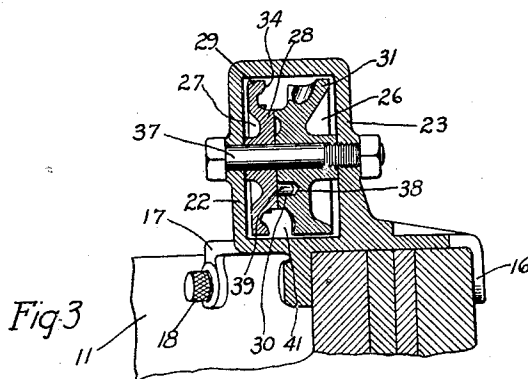
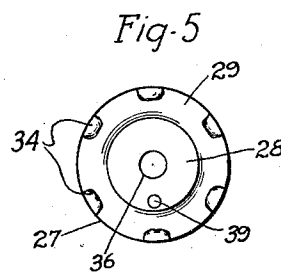
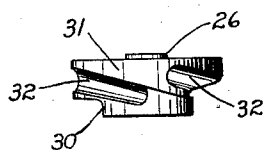


Fig. 6

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ANCHOR HOIST

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My invention relates to boat anchor hoists and has for its object to provide a device by means of which the usual boat anchor rope may be guided so as to hold the same away from the side of the boat and by means of which the rope may be locked from movement when the anchor is in raised position.

Another object of the invention resides in providing a device whereby the boat anchor rope may be readily manipulated from any position within the boat proper.

Another object of the invention resides in constructing the device with a plate-like member adapted to lie along the gunwale of the boat and having an overhanging portion extending outwardly therefrom and in attaching the locking device to said overhanging portion in such a manner that the same directs the anchor rope away from the side of the boat.

A still further object of the invention resides in forming on said plate-like member and the overhanging portion thereof spaced bearings, and in journaling within said bearing, a rotatable member serving to guide the anchor rope and hold the same from movement.

A feature of the invention resides in constructing said rotatable member in halves, each formed with a hub and a flange, the hubs of said halves facing one another and providing an annular groove and in providing the flange of one of said members with a series of spiraled grooves communicating with said annular groove and in further providing the other flange with a series of projections adapted to extend into said annular groove.

Other features of the invention reside in the details of construction and in the novel combination and arrangement of parts described in the specification and shown in the drawings.

In the drawings,
Fig. 1 is a perspective view of a portion of a row boat illustrating the application of my invention thereto.

Fig. 2 is a plan view of the boat anchor hoist illustrated in Fig. 1 together with a portion of the gunwale of the boat.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 2.

Fig. 5 is an elevational view of one of the rotatable members.

Fig. 6 is a plan view of the other rotatable member.

For the purpose of illustrating the application of my invention, I have shown in Fig. 1 the forward portion of a boat 10, which is constructed with the usual gunwales 11 and 12 and a forward decking 13. The boat proper forming no particular feature of the invention has not been shown in detail.

The invention proper consists of a supporting structure 14 which comprises a plate-like member 15 adapted to be placed upon the gunwale 11, as best shown in Fig. 1. This plate-like member is formed with four downwardly extending ears 16 and 17 which are adapted to straddle the sides of the gunwale. The ears 17 may be tapped to receive thumb screws 18 by means of which the device may be detachably secured to the boat. If desired, the structure may be permanently mounted upon the gunwale by means of screws adapted to be received within screw holes 19 in the plate-like member 15 and screwed into the gunwale proper.

The plate-like member 15 is constructed with an overhanging portion 20 which forms a continuation thereof and which projects outwardly beyond the side of the boat. This overhanging portion is of angular formation, as best shown in Fig. 2, commencing at the rear of said plate-like member and flaring outwardly towards the front of the same. Along the outer edge 21 of the overhanging portion 20 is formed an upwardly extending bearing 22 which is disposed in inclined relation to the major portion of the plate-like member 15. A similar bearing 23 is formed on said plate-like member and is spaced parallel from the bearing 22. These two bearings are connected together at the upper portion thereof by means of a bridge member 24 which, in addition to stiffening the said bearings, serves in a manner to assist in

the locking of the rope, as will be presently described.

The invention further comprises a rotatable member indicated in its entirety at 25 which comprises two halves 26 and 27. The half 27 includes a hub 28 and a flange 29, which extends outwardly therefrom at one end thereof. Upon the inner face of this flange are situated a number of projections 34 which are arranged near the periphery thereof. The half 26 is similarly constructed to the half 27 and includes a hub 30 and a flange 31. Flange 31 is considerably wider than the flange 27 and is formed with a plurality of helical spiraled grooves 32 which commence at the surface of the hub 30 and extend outwardly toward the periphery of the flange 31. The two halves 26 and 27 are centrally bored as indicated at 35 and 36 to receive a bolt 37, which extends through the bearings 22 and 23 and serves as a shaft for rotatably supporting the said rotatable member. The two halves are arranged upon said bolt with the hubs 28 and 30 facing one another. To prevent relative rotation between the two halves 26 and 27, the hub 31 is formed with a socket 38 which is adapted to receive a pin 39 issuing outwardly from the face of the hub 28. When the two halves 26 and 27 are disposed between the bearings 22 and 23 the same form a unitary structure adapted to guide the rope and lock the same against movement when desired.

In the use of the device the boat anchor rope which I have shown in Fig. 1 at 40, is threaded through the annular groove 41, in rotatable member 25 and between the hubs 28 and 30 and the bridge-like member 24, leaving the free end 42 of the rope extending toward the interior of the boat. As long as the rope remains within the groove 41, the anchor may be raised and lowered at will. When the rope is shifted toward the flange 31 the same becomes engaged within one of the spiral grooves 32. Upon slightly releasing the tension of the rope the weight of the anchor causes the rotatable member 26 to rotate in a clockwise direction as viewed from Fig. 1, which brings the rope in contact with the bridge-like member 24 in a manner to firmly clamp the rope and hold the same from further movement. It will be noted in Fig. 4 that the bridge-like member 24 is beveled as indicated at 43 to further aid in locking the rope so as to hold the anchor in any desired elevated position. When it is desired to release the rope, the free end 42 thereof is drawn sufficiently back to disengage the rope from the particular groove 32 in which it may have been lodged and the rope is then moved in alignment with the groove 41 so as to cause the same to travel along said groove. The anchor may then be raised and lowered as before. In order to reduce the tendency of the rope to climb the

flange 25, the projections 34 have been provided which, upon engagement with the rope, throw the same back into the groove 41.

The advantages of my invention are manifest. An extremely simple and positive device is provided whereby the anchor rope of a boat may be readily and conveniently manipulated by the user in any position within the boat. The user may also remain seated while operating the device, thereby adding to the safety of the occupants. The holding device serves to firmly hold the anchor rope and the greater the weight of the anchor the firmer the same is held. The device may be constructed at a nominal cost and can be either detachably or permanently secured to the boat structure. The device serves to direct the rope away from the side of the boat, thereby preventing injury to the paint or covering on the boat and at the same time preventing unnecessary wear upon the rope. Several sizes of rope may be used with my invention so that different sizes of the device are unnecessary for any one type of boat.

Changes in the specific form of my invention, as herein disclosed, may be made within the scope of what is claimed without departing from the spirit of my invention.

Having described my invention, what I claim as new and desire to protect by Letters Patent is:

1. In combination, a plate-like member adapted to lie along the gunwale of a boat, means for securing said member to the boat, said plate-like member having an overhanging portion extending angularly outwardly beyond the boat proper, and means attached to said overhanging portion for guiding and anchoring the anchor rope, said means serving to direct the rope away from the side of the boat.

2. In combination, a supporting structure, a rotatable member journaled therein, said member having an annular groove and being formed on one side of said groove with spiral grooves and on its other side with spaced projections, and a member adapted to cooperate with said rotatable member for holding a boat anchor rope locked within one of said spiral grooves.

3. In combination, a supporting structure, bearings on said supporting structure, a rotatable member journaled between said bearings, said member being constructed with a plurality of spiraled grooves and an annular groove communicating therewith, and a bridge member connecting said bearings for retaining a boat anchor rope in engagement with said member and operating in conjunction with said rotatable member to hold the boat anchor rope locked relative to said supporting structure.

4. A rope locking device comprising a rotatable member formed in halves, said halves being arranged face to face, one of said halves

having a flange formed with a spiral groove, the other of said halves having a similar flange, said members forming in conjunction with one another an annular groove communicating with said spiral groove, and a fixed member positioned in proximity to the periphery of said rotatable member for cooperation with said spiral groove to hold a rope locked therein.

5. A rope locking device comprising a rotatable member formed in halves, said halves being arranged face to face, one of said halves having a flange formed with a plurality of spiral grooves therein, the other of said halves having a flange provided with projections along the inner face thereof extending toward said spiral grooves, said members forming in conjunction with one another an annular groove communicating with said spiral grooves, and a fixed member positioned in proximity to the periphery of said rotatable members for cooperation with said spiral grooves to hold a rope locked therein.

6. A rope locking device comprising a rotatable member having a hub, a flange formed on said rotatable member, a second rotatable member having a hub and a flange formed thereon, a series of projections formed on the inner face of the flange of one of said members, and a series of spiral grooves formed in the flange of said other member, said grooves commencing at the hub of said member and extending toward the periphery of said flange, said hubs forming in conjunction with said flanges an annular groove communicating with said spiral grooves, and a fixed member cooperating with said spiral grooves for locking the rope.

7. In combination, a plate-like member adapted to lie along the gunwale of the boat, an overhanging portion formed on said plate-like member projecting outwardly therefrom, means for attaching said member to the boat, a pair of bearings issuing upwardly from said plate-like member, one of said bearings being disposed at the extreme edge of said overhanging portion, a bridge-like member connecting said bearings, and a rotatable member journaled between said bearings and adapted to cooperate with said bridge-like member for clamping the anchor rope therebetween.

8. In combination, a plate-like member adapted to lie upon the top of the gunwale of a boat, clamps formed on said member for attaching the same to the gunwale, said plate-like member having an overhanging portion extending angularly outwardly beyond the boat, bearings issuing upwardly from said plate-like member at the angular portion thereof, and a rotatable member journaled in said bearings and extending outwardly beyond the extreme end of said angular portion for guiding an anchor rope along the side of the boat.

9. In combination, a supporting structure, bearings issuing outwardly from said supporting structure, a rotatable member journaled between said bearings, and a bridge member connecting said bearings and extending across said rotatable member, said bridge member being spaced from said support, and means on said rotatable member for clamping the rope against said bridge member to hold the same from movement, said bridge member retaining the rope in engagement with said rotatable member.

In testimony whereof I have affixed my signature to this specification.

THOMAS H. WILLS.

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