

Aug. 30, 1927.

B. M. SCHAUMAN

1,640,672

ANCHOR DAVIT

Original Filed Aug. 3, 1922

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Fig. 1.

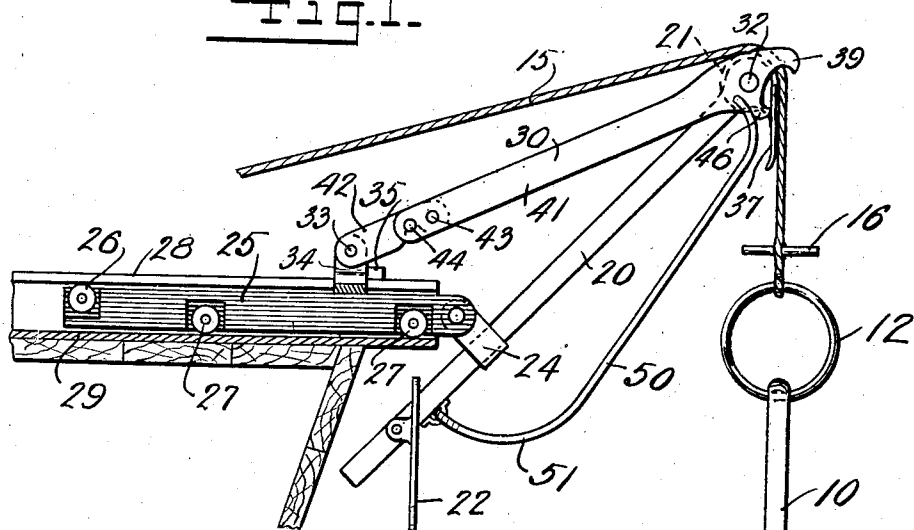
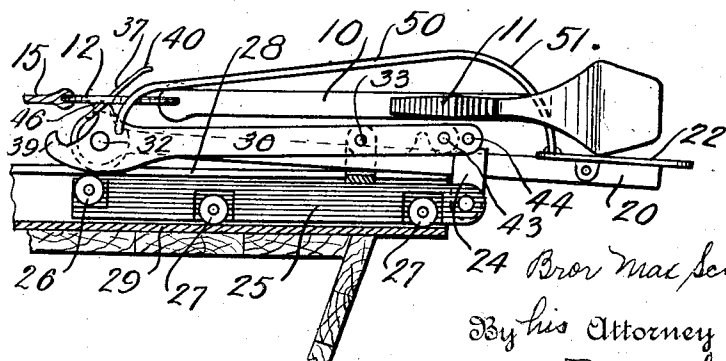


Fig. 2.



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Fig. 3.

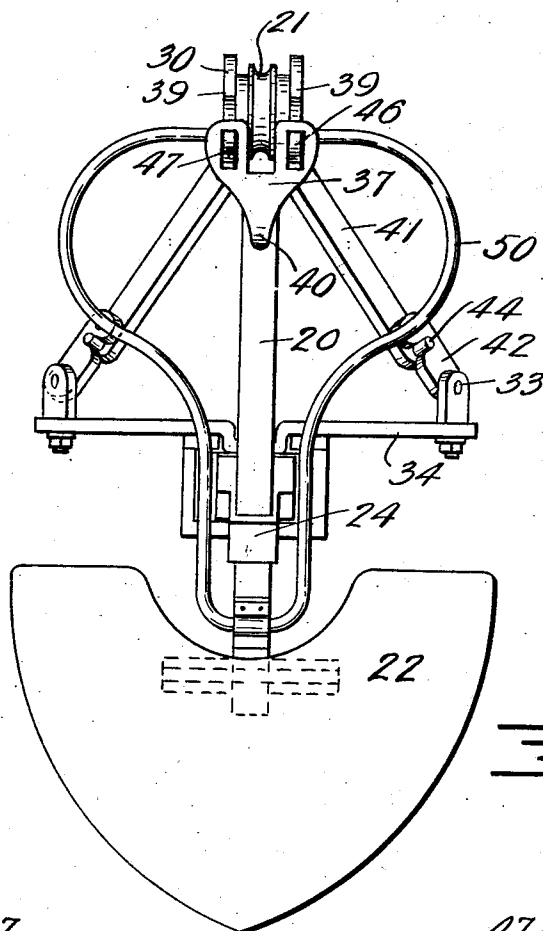


Fig. 10.

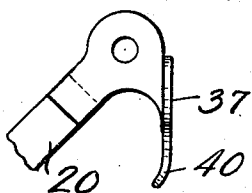


Fig. 11.

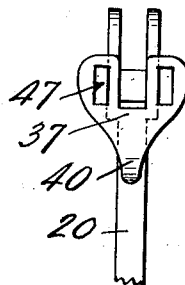
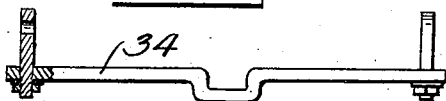


Fig. 9.



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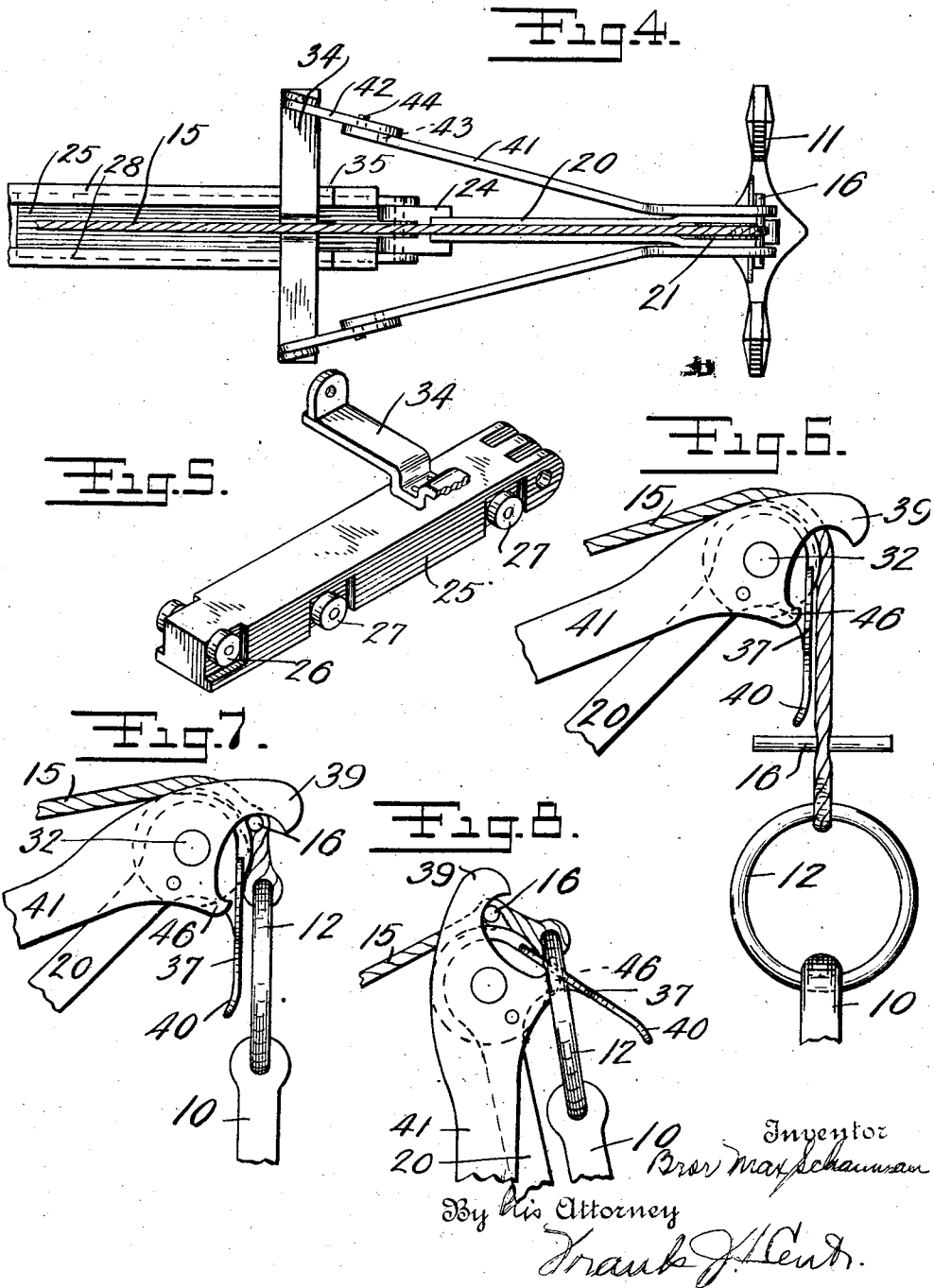
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UNITED STATES PATENT OFFICE.

BROR MAX SCHAUMAN, OF ATLANTIC HIGHLANDS, NEW JERSEY, ASSIGNOR TO AN ASSOCIATION COMPRISING GRANDIN V. JOHNSON, OTTO GAUTSCHY, AND HARRY W. JOHNSON, ALL OF HIGHLANDS, NEW JERSEY; WILLIAM KOCH, OF LONG BRANCH, NEW JERSEY; AND BROR MAX SCHAUMAN, OF ATLANTIC HIGHLANDS, NEW JERSEY; ONE-FIFTH TO EACH MEMBER.

ANCHOR DAVIT.

Application filed August 3, 1922, Serial No. 579,370. Renewed November 17, 1926.

This invention relates to anchor davit devices and has for its object the provision of means for raising and lowering a ship's anchor with a minimum of effort and without injury to the vessel.

A further object of this invention is the provision of means whereby the anchor may be automatically locked in position on board the vessel when raised.

A further object of this invention is the provision of a support for said anchor and of means whereby said anchor automatically positions itself upon said support when the former is raised.

Other objects and advantages will hereinafter appear.

In the accompanying drawings:

Fig. 1 is a side elevation of a portion of a vessel with the invention applied thereto, the anchor being shown in position ready to be lowered.

Fig. 2 is a view similar to Fig. 1 but with the anchor resting upon its support.

Fig. 3 is a front elevation of the anchor davit as shown in Fig. 1.

Fig. 4 is a plan view of the device as shown in Fig. 1.

Fig. 5 is a perspective view of the carriage upon which the support is mounted.

Fig. 6 is a view of the upper portion of the support showing the means for properly and automatically positioning the anchor upon the support, and showing the anchor just before reaching said upper portion.

Fig. 7 is a view similar to Fig. 6 but showing the anchor raised and properly positioned relative to the support.

Fig. 8 is a view similar to Figs. 6 and 7 but showing the support beginning to swing toward the carriage.

Fig. 9 is a front elevation, partly sectioned, of the member whereby the support is connected to the carriage.

Fig. 10 is a detail of one of the positioning members on the upper portion of the support.

Fig. 11 is a front view of the positioning members on the upper end of the support.

Referring to the drawings, there is shown an anchor 10 having arms 11 at one end of

the shank and a ring 12 at the other end of the shank, the plane of said ring being substantially the plane of said arms. A cable 15 is attached at one end to the ring 12 and a cross-bar or rod 16 is passed through said cable near the ring so that said rod is substantially in the plane of said ring. The other end of the cable is connected to a winch or other winding mechanism.

For supporting the anchor there is provided a support 20 having a pulley 21 at its upper end over which the cable passes, and having a plate 22 at its lower end for supporting the arms 11 of the anchor. The support 20 is pivotally connected by a bracket 24 fixed thereto to a carriage 25 which is mounted by anti-friction rollers 26 and 27 between upper and lower rails 28 and 29 fixed to the vessel. When the anchor is ineffective it rests upon the support 20 which in turn rests upon the carriage, as shown in Fig. 2. A cable attached to any suitable winding mechanism may be provided for drawing the carriage outwardly upon the deck of the vessel to the Fig. 2 position, said outward movement being limited by suitable stops 35. In this position the heavy arms 11 of the anchor project over the sides of the vessel so that when the cable 15 is released the anchor will, by its own weight, rotate the support 20 about bracket 24 so that the anchor may fall freely. To limit the outward movement of support 20 there is provided at each side of said support a linkage 30 pivoted at one end to the upper end of the support at 32 and at the other end at 33 to a bracket 34 fixed to the carriage.

Means are provided whereby the anchor, when drawn up, positions itself properly upon the support 20. Said means comprises a plate 37 fixed to the upper end of the support in a plane parallel to the plane of plate 22, so that as cross-bar 16 and ring 12 contact with plate 37 the latter will turn them, and hence also the anchor arms, until their plane coincides with that of plate 22, so that when the anchor is fully drawn up, both arms 11 will come to rest simultaneously upon plate 22. The upward movement of the anchor is limited by the engagement of

cross-bar 16 in jaws 39 at the outer ends of links 30. Further winding of the cable after the engagement of the bar 16 in jaws 39 will rotate support 20 inwardly until the arms 11 of the anchor rest upon plate 22 and a tongue 40 on plate 37 projects through ring 12 to prevent lateral movement of the latter. At the same time a tongue 46 at the end of each link 33 engages in openings 47 in plate 37 and projects therethrough to prevent downward slipping of the bar 16, and hence of the anchor, since said tongues 46 will engage said bar and prevent said downward movement.

After the anchor has positioned itself upon the support, further winding of the cable 15 will rotate the support about the pivot of bracket 24 inwardly upon the carriage. Since the distance between pivot 33 and the upper end of the support is shortened as the support rotates inwardly, each link 30 comprises two sections 41 and 42 pivoted together at 43 so that section 41 may rotate about pivot 43 in a counterclockwise or inward direction and fold upon section 42. When the anchor is lowered and support 20 rotates outwardly, section 41 rotates outwardly about pivot 43, said outward rotation of section 41 being limited by the engagement of a pin 44 on an extension of section 41 in a groove 45 in section 42.

The anchor and support being rotated to rest upon the carriage, the latter may be drawn inwardly by further winding of cable 15. To prevent the anchor slipping off the support due to rolling of the vessel, guards 50 may be fixed to either side of the support, the lower ends 51 of said guards extending between the arms 11 to prevent lateral movement thereof.

The above description illustrates a preferred embodiment of my invention, but various changes may be resorted to within the scope of the annexed claims.

Claims:

1. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a carriage movable inwardly and outwardly upon said vessel, a support for said anchor, said support being pivoted near its lower end on said carriage and foldable upon said carriage, an anchor resting upon the support when said support is in folded position, the center of gravity of said anchor when resting upon the support and with the carriage in outward position being outside of the vessel so that release of said cable permits the anchor to rotate the upper end of the support outwardly so that the anchor may be lowered clear of the vessel and means for limiting the outward movement of the support.

2. An anchor davit mounted on a vessel

for raising and lowering an anchor by means of a cable, said davit comprising a carriage movable inwardly and outwardly upon said vessel, a support for said anchor, said support being pivoted near its lower end on said carriage, the center of gravity of said anchor when positioned upon said support, and with the carriage in outward position, being outside of the vessel, so that release of said cable permits the anchor to rotate the upper end of said support outwardly so that the anchor may be lowered clear of the vessel, a link pivoted on said carriage and pivotally connected to the upper end of said support for limiting the outward movement of the latter and means on the support for positioning the anchor when the same is being raised.

3. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a carriage movable inwardly and outwardly upon said vessel, a support for said anchor, said support being pivoted near its lower end upon said carriage, the center of gravity of said anchor when positioned upon said support, and with the carriage in outward position, being outside of the vessel, so that release of said cable permits the anchor to rotate the upper end of said support outwardly so that the anchor may be lowered clear of the vessel, and a link pivoted on said carriage and pivotally connected to the upper end of said support for limiting the outward movement of the latter, said link being collapsible to permit the outer end of said support to be swung inwardly upon said carriage.

4. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a carriage movable inwardly and outwardly upon said vessel, a support for said anchor, said support being pivoted near its lower end upon said carriage, the center of gravity of said anchor when positioned upon said support, and with the carriage in outward position, being outside of the vessel, so that release of said cable permits the anchor to rotate the upper end of said support outwardly so that the anchor may be lowered clear of the vessel, and a link pivoted on said carriage and pivotally connected to the upper end of said support for limiting the outward movement of the latter, said link comprising pivoted sections which fold one upon the other to permit the outer end of said support to swing inwardly upon said carriage.

5. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a carriage movable inwardly and outwardly upon said vessel, a support for said anchor, said support being pivoted near its lower end upon said

carriage, the center of gravity of said anchor when positioned upon said support, and with the carriage in outward position, being outside of the vessel, so that release of said cable permits the anchor to rotate the upper end of said support outwardly so that the anchor may be lowered clear of the vessel, and a link pivoted on said carriage and pivotally connected to the upper end of said support for limiting the outward movement of the latter, said link comprising pivoted sections which fold one upon the other to permit the outer end of said support to swing inwardly upon said carriage, said sections being unfolded by the outward movement of said upper end of the support, and means for limiting the unfolding movement of said sections so that said sections form a continuous link.

6. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a carriage movable inwardly and outwardly upon said vessel, a support for said anchor, said support being pivoted near its lower end upon said carriage, the center of gravity of said anchor when positioned upon said support, and with the carriage in outward position, being outside of the vessel, so that release of said cable permits the anchor to rotate the upper end of said support outwardly so that the anchor may be lowered clear of the vessel, and a link pivoted on said carriage and pivotally connected to the upper end of said support for limiting the outward movement of the latter, said link comprising pivoted sections which fold one upon the other to permit the outer end of the support to swing inwardly upon said carriage, said sections being unfolded by the outward movement of the upper end of the support, and means for limiting the unfolding movement of said sections so that said sections form a continuous link. said means comprising an extension on one of said sections, a pin carried by said extension, said other section having a groove for receiving said pin.

7. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a carriage movable inwardly and outwardly upon said vessel, a support for said anchor, said support being pivoted near its lower end on said carriage, the center of gravity of said anchor when positioned upon said support, and with the carriage in outward position, being outside of the vessel, so that release of said cable permits the anchor to rotate the upper end of said support outwardly so that the anchor may be lowered clear of the vessel, and a link pivoted at each side of said support on said carriage and pivotally connected to the upper end of said support for limiting the outward

movement of the latter, said link having means on its outer end for limiting the upward movement of the anchor.

8. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a pivoted support for said anchor, said support being swingable outwardly to permit said anchor to be raised or lowered clear of said vessel, and a plate carried by the upper end of said support for engaging the upper end of the anchor as the latter is raised to properly position said anchor relative to said support.

9. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a pivoted support for said anchor, said support being swingable outwardly to permit said anchor to be raised or lowered clear of the vessel, and a plate carried by the upper end of said support for engaging the upper end of the anchor as the latter is raised, the plane of said plate being substantially parallel to the plane of said support to properly position said anchor relative to said support.

10. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a pivoted support for said anchor, said support being swingable outwardly to permit said anchor to be raised or lowered clear of the vessel, said anchor having a ring at its upper end, and a plate carried by the upper end of said support for engaging said ring as the anchor is raised to turn said anchor into the plane of said plate, the plane of said plate being substantially parallel to the plane of said support to properly position said anchor relative to said support.

11. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a pivoted support for said anchor, said support being swingable outwardly to permit said anchor to be raised or lowered clear of the vessel, said anchor having a ring at its upper end, and a plate carried by the upper end of said support for engaging said ring as the anchor is raised to turn said anchor into the plane of said plate, the plane of said plate being substantially parallel to the plane of said support to properly position said anchor relative to said support, said plate having an extension, said extension projecting through said ring when the support and anchor are positioned on the carriage to prevent lateral movement of the upper end of said anchor.

12. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a pivoted support for said anchor, said support being swingable outwardly to permit said anchor

to be raised or lowered clear of the vessel, said anchor having a ring at its upper end, and a plate carried by the upper end of said support for engaging said ring as the anchor is raised to turn said anchor into the plane of said plate, the plane of said plate being substantially parallel to the plane of said support to properly position said anchor relative to said support, said plate having an extension, said extension projecting through said ring when the support and anchor are positioned on the carriage to prevent lateral movement of the upper end of said anchor, and a guard on said support for preventing lateral movement of the lower end of said anchor.

13. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a pivoted support for said anchor, said support being swingable outwardly to permit said anchor to be raised or lowered clear of the vessel, said anchor having a ring at its upper end, and a plate carried by the upper end of said support for engaging said ring as the anchor is raised to turn said anchor into the plane of said plate, the plane of said plate being substantially parallel to the plane of said support to properly position said anchor relative to said support, said support being swingable inwardly when said anchor has been positioned thereon, and means passing through said plate when said support is swung inwardly and engageable with said ring to prevent downward movement of said ring and said anchor.

14. An anchor davit mounted on a vessel

for raising and lowering an anchor by means of a cable, said davit comprising a carriage movable inwardly and outwardly upon said vessel, a support for said anchor, said support being pivoted near its lower end on said carriage, a bracket on the carriage, a link pivoted at one end to the bracket and having its other end pivoted to the upper end of the support, said link adapted to limit the outward movement of the support.

15. An anchor davit mounted on a vessel for raising and lowering an anchor by means of a cable, said davit comprising a carriage movable inwardly and outwardly upon said vessel, a support, said support having a resting plate for the anchor at its lower end, and a positioning plate for the anchor at its upper end, the positioning plate being provided with openings, said support being pivoted near its lower end to said carriage, the outer end of the support adapted to be swung beyond the side of the vessel when the anchor is lowered, a link pivoted at its lower end to the carriage and having its upper end pivoted to the upper end of the support, the upper end of the link being provided with jaw members and a tongue member, said jaw members adapted to engage a cross bar carried by the cable and the tongue member adapted to enter the openings in the positioning plate for positioning the anchor on the resting plate when the anchor is raised and the support swung inwardly of the vessel.

In testimony whereof I affix my signature.

BROR MAX SCHAUMAN.