United States Patent [19]

Young

[11] **3,828,707**

[45] **Aug. 13, 1974**

[54] **BOAT BOW STEP**

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[22] Filed: **Feb. 12, 1973**

[21] Appl. No.: **331,784**

[52] **U.S. Cl.** ..... **114/.5 R,** 182/92

[51] **Int. Cl.** **B63b 35/00**

[58] **Field of Search** ..... 114/.5 R; 9/1 R, 1 T, 400; 182/90, 92, 150

[56] **References Cited**

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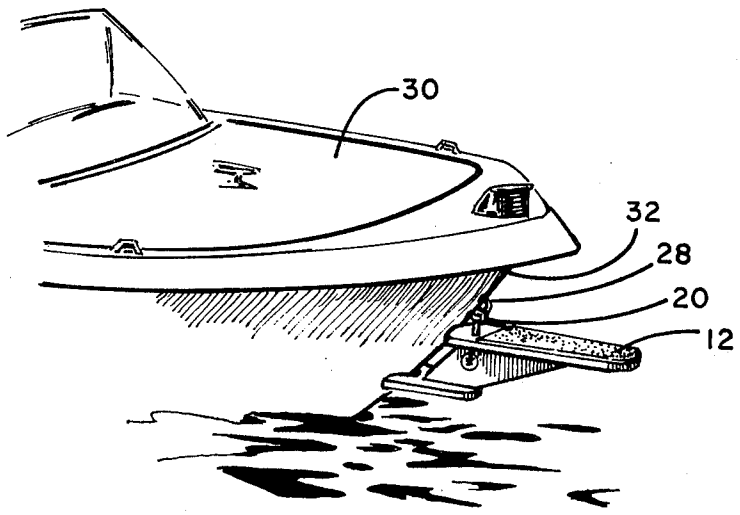
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Assistant Examiner—Stuart M. Goldstein
Attorney, Agent, or Firm—Jerry R. Seiler

[57] **ABSTRACT**

A device for providing a step on the bow of a boat comprises a flat upper step member, a lower stabilizing member having a notched cavity for engaging the bow of the boat and a support member attached to and extending between the upper and lower members.

9 Claims, 5 Drawing Figures



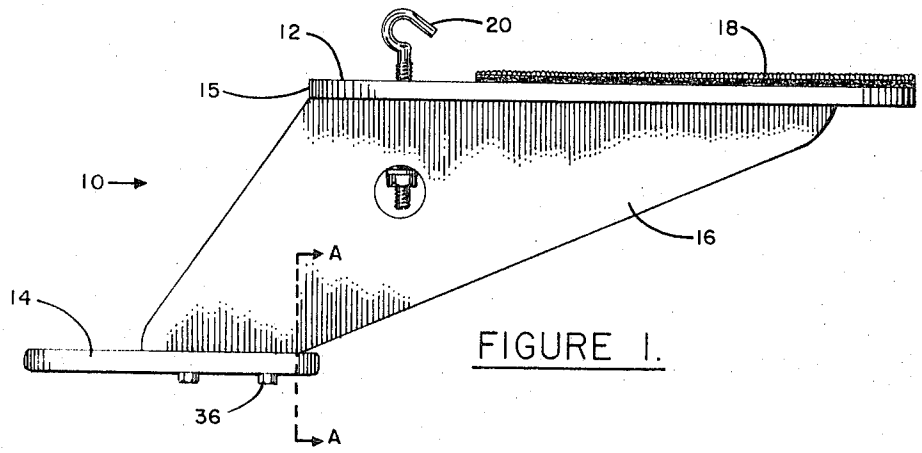


FIGURE 1.

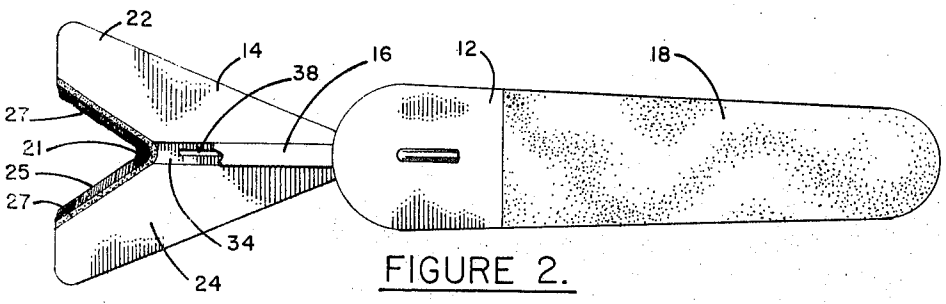


FIGURE 2.

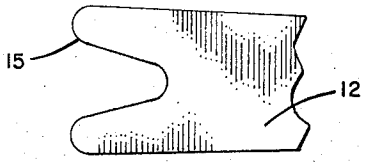


FIGURE 3.

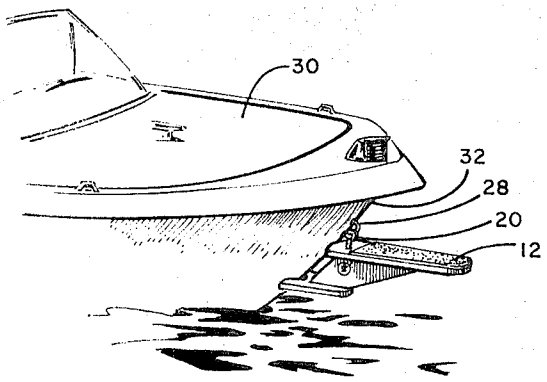


FIGURE 4.

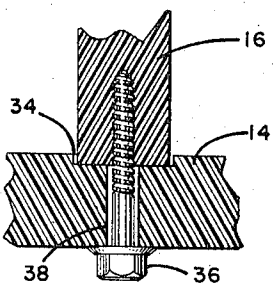


FIGURE 5.

BOAT BOW STEP

BACKGROUND OF THE INVENTION

Often it is desired to embark or disembark from a boat at its bow. This is particularly true in pleasure craft such as motor boats, yachts of various sizes, sail boats and the like adjacent a beach or similar natural docking areas. For example, it will be appreciated that where an operator of a pleasure craft wishes to bring a boat close to a shore line so that the passenger or crew member may leave the boat for a picnic, camping or other recreation on the shore, it is desirable to have the boat as close to shore as possible so that the passengers may avoid swimming or wading in deep water which is obviously most inconvenient when supplies are to be carried. Moreover, since the motor and props are located aft, to attempt to back the boat into the shore is dangerous and may result in damage to a propeller or the boat's stern which is usually not as sturdy in construction as the reinforced bow.

On the other hand, unless a boat is of very low or shallow freeboard design, the bow deck is quite high above the water line which makes disembarking at the bow usually quite inconvenient. Although various types of bow ladders have been proposed, they are often cumbersome to use and stow due to their relatively long length. Moreover, because of significant differences between different boat design and bow hardware, and especially between sail and power boats, available bow ladders are not usually interchangeable between boats of these different types.

SUMMARY OF THE INVENTION

It is the object of the present invention to provide a device which creates a step for the bow of the boat. The device is relatively simple in design, versatile for all types of pleasure boats and craft and may be easily installed and removed. The device of the invention comprises a flat upper step member on which a passenger may rest or place his foot at a convenient distance from the bow deck when disembarking. Spaced apart from the upper member is a lower member or yoke having a notched cavity for engaging the bow thereby stabilizing the device from substantial lateral movement and a support member attached to and extending between these upper and lower members. The device is also provided with a hook or similar member projecting from the top of the flat upper member for securing the device to an eyelet or similar hardware extending from the boat bow thereby securing the device vertically. The advantages of such a device will be evident from the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view of the bow step device of the invention;

FIG. 2 is a top plan view of the device of FIG. 1;

FIG. 3 is a partial plan view of a modification of the upper step member;

FIG. 4 is a perspective view showing the device installed on a boat bow; and

FIG. 5 is a partial sectional elevation taken along line A—A of FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIGS. 1 and 2, a boat bow step 10 of the invention comprises an upper step member 12 which has a generally flat upper surface to provide a step on which a person may place his foot when embarking or disembarking from a boat bow deck. Spaced apart from the upper step member is a yoke or lower stabilizing member 14 having a generally V-shaped cavity located between a pair of arms 22 and 24 extending as shown in FIG. 2. The device is further supported by rigid support member 16 which is attached to and extends between the upper and lower members.

Upper step member 12 may be provided with carpet or pad 18 as shown on all or any portion of its upper surface which carpet or pad will cushion the step surface. The use of such a carpet or pad will prevent slipping which feature is especially important since a user may have wet feet, especially when embarking. Any suitable and preferably water resistant material such as rubber, plastic or synthetic carpet may be conveniently used for this purpose. The upper member should also be of a size to provide a sufficiently large and convenient step for a user to place a foot on. Moreover, it should be placed forwardly with respect to the lower stabilizing member so that when secured on a bow, the lower member will be urged against the bow.

Observing further FIG. 2, the lower stabilizing member may be of any convenient shape. However, a pair of arms 22 and 24 or similar angularly projecting means are required between which a cavity is located for receiving a portion of a boat bow. The interior surface 27 of each arm should be angled so that the cavity therebetween is V-shaped. Thus, these interior surfaces will lie against the bow surface and give the device added stability. It may also be preferable to utilize a pad or cushion 25 for lining the interior of the cavity as shown in order to prevent scratching or marring the bow against the interior cavity surface.

Observing also FIG. 4, it will be noted that the upper and lower members 12 and 14 are displaced or offset from one another in relation to the vertical angle of the bow. Accordingly, when the device is attached to the boat, the back or rear edge 15 of upper member 12 will be adjacent the surface of the bow. However, since the bow slants angularly from vertical as seen in FIG. 4, a similar angular displacement is required between the back edge 15 of upper member 12 and crotch 21 of the cavity formed in lower member 14. Moreover, support member 16 must also be shaped so that it will not interfere with the bow. Yet, it will be understood that the extent to which the upper and lower members are displaced or offset horizontally may depend on the angle of a slanted bow with respect to vertical. However, a single device may be used on different boats and the step surface of upper member 12 will be substantially horizontal or at least close enough to provide a convenient step unless bow angle differences are significant. Although support member 16 is shown as a single piece, it may be in any form such as metal braces and the like so as to achieve the same purpose of maintaining separation between the upper and lower members while being of sufficient rigidity and strength to support the upper step member horizontally.

In order to provide adjustment for different bow slopes, as shown in FIGS. 2 and 5, lower member 14 includes a groove 34 along its upper surface in which the lower end of support member 16 is received. A slot 38 is provided through lower member 14 into which slot a pair of long screws 36 extend. Observing particularly FIG. 5, the upper threaded end of screw 36 is thread-

edly secured into support member **16.** Thus, by loosening the screws, lower member **14** may be adjusted along slot **38** until its desired position is achieved and the screws can then be tightened. Other equivalent means for providing adjustment of the lower member may also be used. However, this adjustable feature is optional and the support member **16** may be permanently secured to lower member **14** if desired.

A hook member **20** is provided and extends upwardly from the upper member **12** for attaching the device to eyelet **28** or similar member installed on a boat bow as shown in FIG. **4.** When the device is to be used, the hook **20** is simply inserted so as to engage eyelet **28** which stabilizes the device vertically along boat bow **32.** The arms **22** and **24** of the lower member extend along each side of the bow which is received in the cavity. Once installed, a user or operator may disembark by stepping from the boat deck **30** onto the surface of upper member **12** and then into shallow water or onto the shore. It will be appreciated that the device may even be used as a ladder by swimmers in deep water. The hook member should also be secured to the upper member at or at least slightly forward of the center of balance of the device. In this manner, when the device is attached to the bow, the balance will be such that the yoke or lower member will be urged toward the bow and the bow will become nested in the open lower member cavity and maintained in that position without further adjustment or positioning.

FIG. **3** illustrates an alternative embodiment whereby the end **15** of upper platform **12** may also be notched for receiving the bow in the same manner as previously described regarding lower member **14.** Such an embodiment may provide further lateral stabilization although it will not usually be required.

The device may be produced from wood, metal or rigid plastic, preferably of a material that will be lightweight but which will float in case it is inadvertently dropped into the water and yet which will be of sufficient rigidity and strength to adequately support the body weight of the user. Accordingly, the specific shape of the step may also be modified as desired as may the other components so long as they achieve the desired purpose of the invention as described herein. These as well as other modifications within the purview of the invention will be evident to those skilled in the art.

I claim:

1. A bow step device for being secured along the inclined bow of a boat between the deck and the water line comprising:

a horizontal step member having a flat upper surface,

a stabilizing member located below said step and spaced therefrom and having a forward end extending outwardly from said bow and a rearward end having a cavity for receiving a portion of said bow, and

a rigid support member having upper and lower ends and extending between said step and stabilizing member, said upper end secured to said step member and said lower end secured to said stabilizing member.

2. The device of claim **1** including means secured to said step member for attaching said device to said bow.

3. The device of claim **2** wherein said means comprises a hook.

4. The device of claim **3** wherein said hook member is secured to said upper member at least slightly forward of the center balance of the device whereby the lower member will be urged against the bow when said hook member is secured to the bow.

5. The device of claim **1** wherein said step has a forward end and a rearward end and said support member has a forward edge and a rearward edge and whereby said forward edge is secured to said stabilizing member adjacent said forward end.

6. The device of claim **5** wherein said bow receiving cavity is V shaped with the narrow portion thereof directed toward said forward end of said stabilizing member.

7. The device of claim **6** wherein the rearward edge of said support member is secured to said stabilizing member adjacent said cavity and to said step member adjacent said rearward end.

8. The device of claim **1** wherein said device includes means for adjusting the relative position of said step and stabilizing members.

9. The device of claim **8** wherein said adjustment means comprises an elongated slot extending through said stabilizing member and one or more screw members extending through said slot and threadedly secured to said support member.

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