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Bernardi

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[54] **MOORING DEVICE**

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[73] Assignee: **Bernardi Bros., Inc.**, Harrisburg, Pa.

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[52] **U.S. Cl.** ..... **114/221 R**, 114/230, 294/19 R, 119/151;153;96

[51] **Int. Cl.** **B63b 21/00**

[58] **Field of Search** ..... 114/230, 221; 294/19 R; 43/87

[56] **References Cited**

UNITED STATES PATENTS

629,760	8/1899	Baldwin	294/19 R
1,063,138	5/1913	Ponninghaus	294/19 R
1,334,649	3/1920	Cayton	294/19 R
2,278,111	3/1942	Kleinfell	294/19 R
2,319,992	5/1943	Hubbard	294/19 R
3,677,597	7/1972	Stipek	114/230

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[57] **ABSTRACT**

A mooring device includes an elongate mooring pole and a spreader assembly having a pair of spreader arms pivotally mounted on the mooring pole movable from an inoperative position lying along the mooring pole to an operative position extending away from the mooring pole, the spreader arms having channels formed in the ends thereof cooperating with a leg extending from a distal end of the mooring pole to define a three-point support for a mooring line forming a loop to be released to drop over a mooring.

7 Claims, 3 Drawing Figures

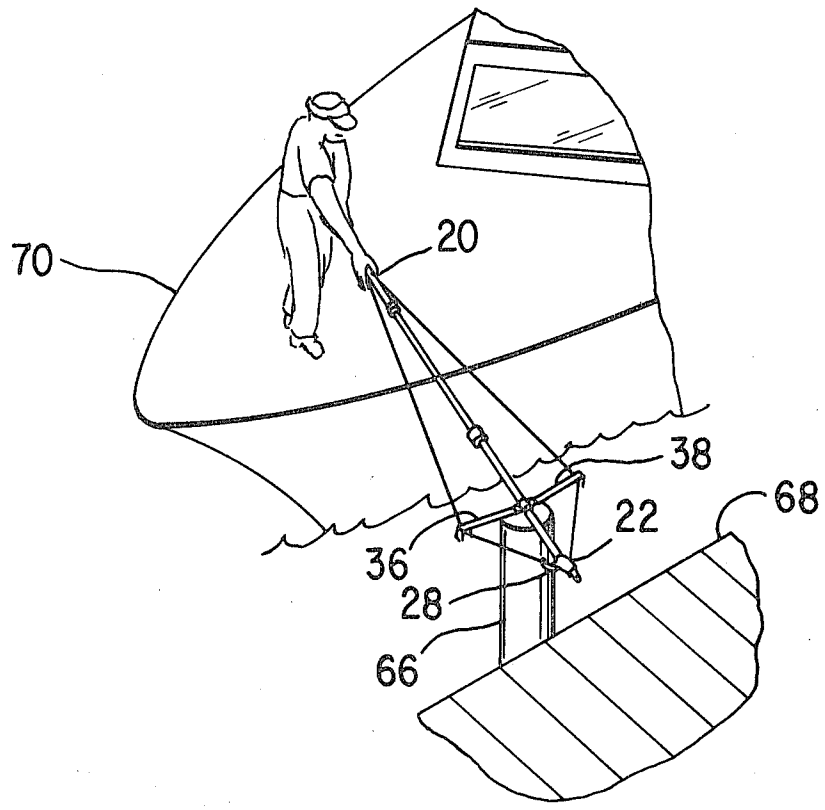


FIG. 1

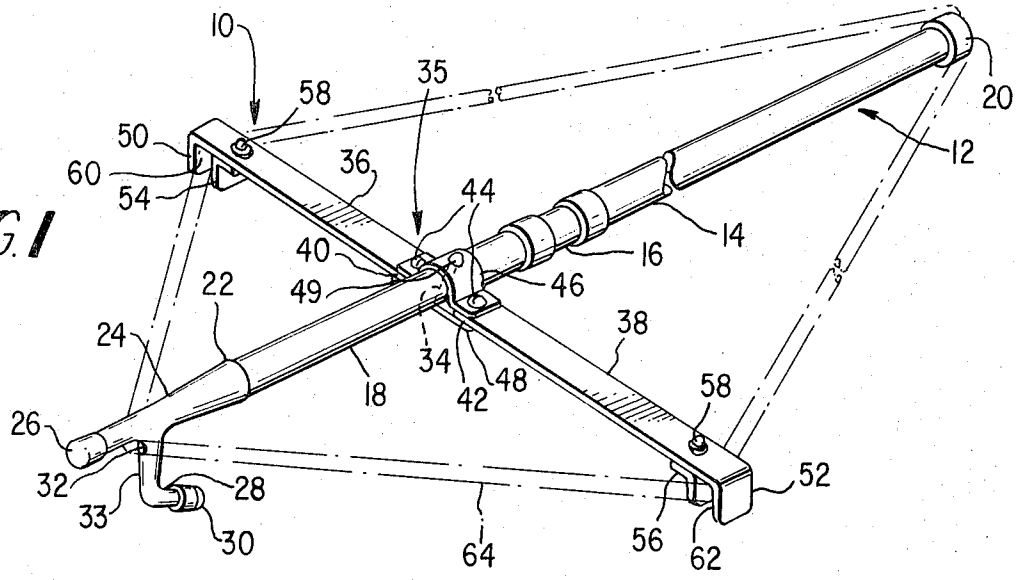


FIG. 2

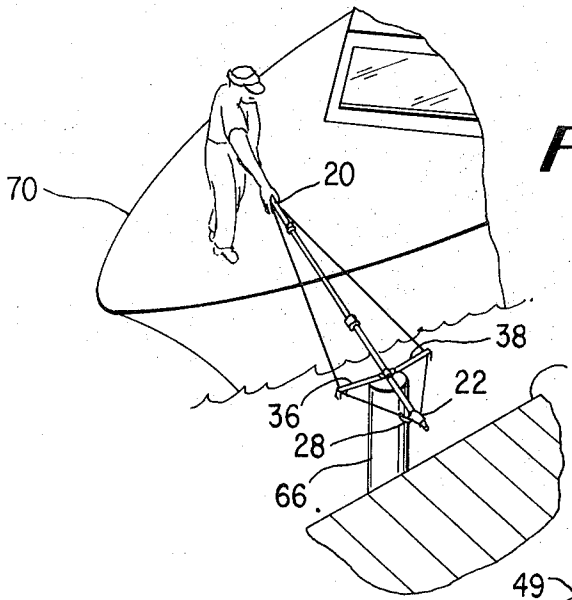
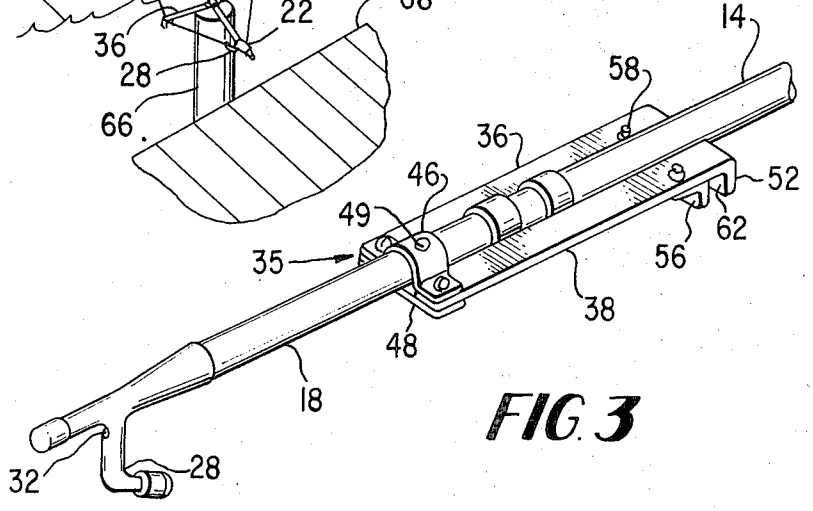


FIG. 3



MOORING DEVICE

BACKGROUND OF THE INVENTION

1. Field of the invention

The present invention pertains to the mooring of boats and, more particularly, to a mooring device for dropping a mooring line over a mooring.

2. Description of the prior art

The mooring or docking of boats normally requires the placement of a looped mooring line around a mooring, such as a piling, hook or the like, such that the boat can be secured at a dock. In order to place the mooring line over the mooring, it has been the practice for a crew member to either jump onto the dock or throw the mooring line to an attendant on the dock such that the line can be manually placed over the mooring. Conditions do not always exist to permit such manual mooring techniques; and, accordingly, there have been prior art attempts to provide extensions or other means for use by a crew member on a boat to facilitate the placement of a looped mooring line over a mooring, as exemplified by U.S. Pat. Nos. 2,347,718 to Terry, 2,811,127 to Palsson, 3,224,404 to DeJong and 3,677,597 to Stipek. The prior art mooring devices have required substantial modifications of conventional mooring poles or have taken the form of devices designed for only this use and, thus, have the disadvantages of awkward handling and requiring additional storage room. That is, since the space on board a boat is limited, it is desirable to maintain the space required for equipment at a minimum thereby rendering the use of an additional piece of equipment only for dropping a mooring line over a mooring undesirable, and attempts to modify conventional mooring poles for dropping a mooring line over a mooring have rendered the mooring pole awkward to handle and difficult to use in normal operation.

SUMMARY OF THE INVENTION

The present invention is generally summarized in a mooring device for use in dropping a mooring line over a mooring including an elongate mooring pole having a handle end and a distal end, the distal end carrying means for engaging the mooring line; and a spreader assembly including an arm pivotally mounted on the mooring pole to be movable to an operative position extending away from the mooring pole and to an inoperative position adjacent the mooring pole, the arm carrying a channel for receiving a mooring line whereby the mooring line can be arranged to engage the channel and the engaging means at the distal end of the mooring pole to form a loop to be released to drop over a mooring.

Accordingly, it is a basic object of the present invention to modify a mooring pole to provide structure for dropping a looped mooring line over a mooring without rendering the mooring pole awkward or difficult to handle.

Another object of the present invention is to pivotally mount a pair of spreader arms on a mooring pole such that the spreader arms can be moved to an inoperative position lying along the longitudinal axis of the pole and to an operative position extending away from the longitudinal axis of the pole to hold a mooring line.

The present invention has an additional object in that an L-shaped hook on the distal end of a mooring pole is provided with a notch cooperating with channels formed in a pair of opposed spreader arms pivotally mounted on the mooring pole to provide a three-point support for a mooring line such that a loop carried on the three-point support can be placed over a mooring and the loop released by hand pressure to fall over the mooring.

Some of the advantages of the present invention over the prior art are that the mooring line support structure does not interfere with normal use of a conventional mooring pole and the mooring device can be inexpensively manufactured and simply used.

Other objects and advantages of the present invention will become apparent from the following description of the preferred embodiment taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a broken perspective view of a mooring device in accordance with the present invention holding a mooring line.

FIG. **2** is a broken perspective view illustrating the use of the mooring device of FIG. **1** to place a mooring line over a mooring.

FIG. **3** is a broken perspective view of the mooring device of FIG. **1** with the spreader arms in the inoperative positions.

DESCRIPTION OF THE PREFERRED EMBODIMENT

A mooring device **10** according to the present invention is illustrated in FIG. **1** and includes a mooring pole **12** formed of telescoping shafts **14, 16** and **18** extending from a handle end **20** adapted to be held by a user to a distal end **22** having a cap **24** secured thereon carrying a resilient end bumper **26** and an L-shaped hook **28** with a resilient bumper **30** on the end thereof. The mooring pole **12** as thus far described is conventional and, thus, will not be described in further detail. One type of mooring pole which can be utilized with the mooring device **10** of the present invention is the EEz-In mooring pole manufactured by Garelick Manufacturing Co., St. Paul Park, Minnesota.

The mooring pole **12** is modified in accordance with the present invention by forming a groove **32** in a leg **33** of hook **28** extending transversely from the longitudinal axis of the mooring pole and by forming a diametral bore **34** in shaft **18.** A spreader assembly **35** includes a pair of opposed rectilinear spreader arms **36** and **38** having inner ends **40** and **42,** respectively, pivotally mounted on the mooring pole by means of screws **44** extending through flanges of a curved mounting clamp **46** and through a flat mounting clamp **48** to be secured by nuts (not shown). The mounting clamps **46** and **48** are secured to the shaft **18** by pop rivets **49** extending in the bore **34** such that the mounting clamps cannot slide along the shaft **18** while angular movement is prevented by the arcuate configuration of the mounting clamp **46.** The spreader arms **36** and **38** have downwardly turned lips **50** and **52** at the outer ends thereof, respectively, and clips **54** and **56** are mounted on spreader arms **36** and **38,** respectively, by pop rivets **58** such that the clamps **54** and **56** are spaced from the lips **50** and **52** to form channels **60** and **62** carried on the outer ends of the spreader arms **36** and **38,** respectively.

For normal use of the mooring pole **12,** the spreader arms **36** and **38** are pivoted to the inoperative position illustrated in FIG. **3** such that they are adjacent the mooring pole in parallel relation with the longitudinal axis thereof. Accordingly, the mooring device **10** permits the use of the mooring pole **12** for conventional operations without any interference of the spreader assembly **35** therewith. When it is desired to utilize the mooring device to drop a mooring line **64** over a mooring, such as a piling **66** at a dock **68** as shown in FIG. **2,** the spreader arms **36** and **38** are pivoted to an operative position extending away from the mooring pole **12,** preferably transverse to the longitudinal axis of the mooring pole. With the spreader assembly in this position, the mooring line **64** is arranged to be engaged by the groove **32** at the distal end **22** of the mooring pole and to pass through the channels **60** and **62** in the outer ends of the spreader arms **36** and **38,** respectively. The mooring line **64** is, thus, held in a three-point support to form a loop with the end of the loop held by a user on board a boat **70** at the handle end **20,** the mooring line being easily held by the user as he grips the mooring pole. The shafts **14, 16** and **18** of the mooring pole can now be telescoped to permit the user to reach out with the mooring pole and position the looped mooring line **64** above the piling **66** with the opposed arrangement of spreader arms **36** and **38** symmetrical relative to hook **28** permitting the user to utilize the hook **28** as a central guide to assure that the looped mooring line **64** is positioned around the piling **66** with the open ends of the channels **60** and **62** facing down. With the mooring device properly positioned, the user releases the end of the mooring line held at the handle end **20,** and the mooring line will drop over the piling to permit the user to pull in the mooring line and position and secure the boat properly relative to the dock.

Inasmuch as the present invention is subject to many variations, modifications and changes in detail, it is intended that all matter described above or shown in the accompanying drawings be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. A mooring device for use in dropping a mooring line over a mooring comprising

an elongate mooring pole having a handle end and a distal end, said distal end carrying means for engaging a mooring line; and

a spreader assembly including arm means pivotally mounted on said mooring pole to be movable to an operative position extending away from said mooring pole and to an inoperative position adjacent said mooring pole, said arm means carrying channel means for receiving a mooring line whereby a mooring line can be arranged to engage said channel means and said engaging means at said distal end of said mooring pole to form a loop to be released to drop over a mooring.

2. A mooring device as recited in claim **1** wherein said arm means includes a pair of opposed spreader arms and said channel means includes a channel formed on the outer end of each of said spreader arms to provide with said engaging means at said distal end of said mooring pole a three-point support for a mooring line.

3. A mooring device as recited in claim **2** wherein said spreader arms are rectilinear and are disposed against said mooring pole in parallel relation to the longitudinal axis of said mooring pole in said inoperative position.

4. A mooring device as recited in claim **3** wherein said engaging means at said distal end of said mooring pole includes an L-shaped hook having a leg extending transversely from the longitudinal axis of said mooring pole.

5. A mooring device as recited in claim **4** wherein said leg of said hook has a groove therein adjacent said mooring pole for receiving a mooring line.

6. A mooring device as recited in claim **5** wherein said mooring pole includes a first shaft carrying said hook and telescoping within a second shaft, and said spreader assembly includes a pair of clamp members engaging said first shaft and pivotally mounting said spreader arms.

7. A mooring device as recited in claim **1** wherein said engaging means at said distal end of said mooring pole includes an L-shaped hook having a leg extending transversely from the longitudinal axis of said mooring pole, said leg having a groove therein adjacent said mooring pole for receiving a mooring line.

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