

Nov. 20, 1962

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3,065,003

RELEASABLE BOAT FENDER FASTENING DEVICE

Filed May 25, 1960

FIG. 1

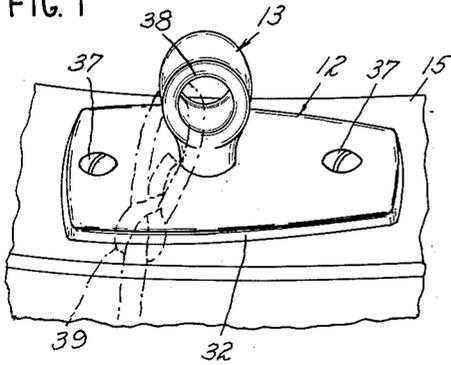


FIG. 2

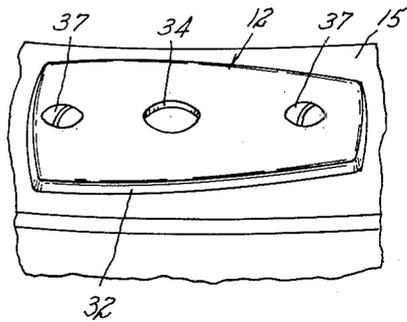


FIG. 3

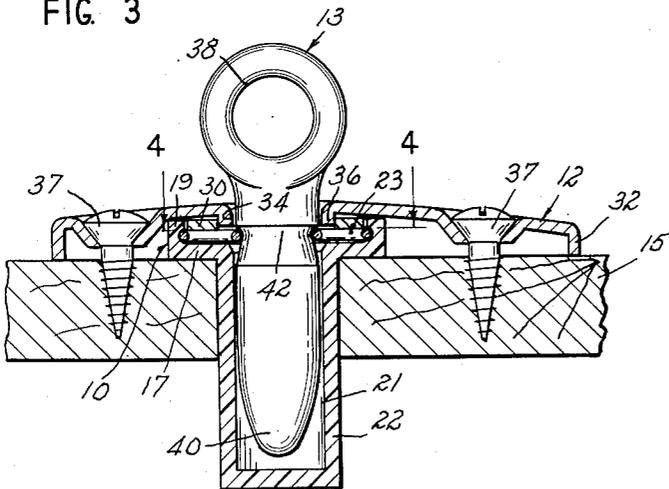
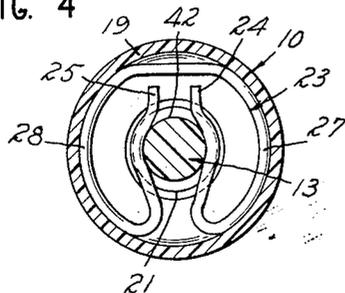


FIG. 4



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1

3,065,003

RELEASABLE BOAT FENDER FASTENING
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Filed May 25, 1960, Ser. No. 31,756

2 Claims. (Cl. 287-20)

This invention relates generally to marine hardware such as cleats and similar fittings for fastening fenders to boats and the like and has, for a general object, the provision of an improved and novel fastening device that permits almost instantaneous attachment and removal of fenders and the like from boats.

It is a further object of this invention to provide a fastening device which, when the fender has been removed for stowage, presents a substantially flush appearance devoid of sharp or protruding corners or projections which may cause torn clothing, snagged lines, or even bodily injury.

It is an additional object of this invention to provide a novel and improved fastening device for releasably securing boat fenders to a boat, which device is rugged, durable and exceptionally economical to manufacture and install.

It is a still further object of this invention to provide a fastening device for securing fenders and the like to boats which fastening device includes a member permanently attached to the fender and second member permanently attached to the boat so that there can be no loss of component parts.

Other objects will be in part obvious and in part pointed out more in detail hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereafter set forth and the scope of the application which will be indicated in the appended claims.

In the drawings:

FIG. 1 is a fragmentary view of a boat showing the fastening device of this invention installed and fully assembled with the fender line shown in phantom;

FIG. 2 is a fragmentary view similar to FIG. 1 with the fender removed so as to show the boat portion of the fastening device as it appears when not in use;

FIG. 3 is a partial cross section view showing the fastening device fully assembled on a fragmentary portion of the boat gunwale; and

FIG. 4 is a cross section view taken generally along the lines 4-4 of FIG. 3.

Referring to the drawings and particularly FIG. 3, it is seen that a preferred embodiment of the releasable fastener or fender lock of this invention generally comprises a socket member 10, a surface plate 12 and a plug 13 to which the fender line is attached. Socket member 10 and plate 12 are secured to a preferred portion of the deck and, in the illustrated embodiment, are shown as mounted on the gunwale 15, a fragmentary portion of which is shown in FIGS. 1-3.

Referring first to socket member 10 as most clearly shown in FIGS. 3 and 4, it is noted that socket member 10 includes a round flange-like member 17 having an upstanding annular rim 19, a central aperture 21 and, in the preferred embodiment, a tubular body member 22 extending downwardly therefrom and closed at its lower end. Secured within annular rim 19 is a spring member 23 which is generally C-shaped (see FIG. 4) and which is provided with two inwardly extending or reversely bent legs 24 and 25. Spring 23 is dimensioned so that side portions 27 and 28 must be slightly compressed to fit with-

2

in rim 19 thereby restraining spring 23 against lateral movement relative to the socket member. Legs 24 and 25 of spring 23 are slightly bowed in opposite directions and partially obscure aperture 21 to engage plug 13 as hereinafter more fully explained. A washer 30 of generally annular shape is positioned on top of spring member 23 and is dimensioned so that its outer periphery closely engages the inner wall of upstanding rim 19. The plate 12 is generally rectangular in shape in the preferred embodiment although any suitable shape will suffice. Plate 12 is provided with a depending rim 32 extending about its outer periphery and an aperture 34 of substantially the same diameter as aperture 21 in the socket member and having a rim 36 depending therefrom. The outer diameter of rim 36 is dimensioned to closely fit within the aperture in washer 30 to assist in positioning the plate relative to the socket member.

Installation and assembly of socket 10 and plate 12 on gunwale 15 is accomplished in a very easy manner. Because the preferred embodiment is shown with a tubular body depending from socket member 10, it is only necessary to drill the proper size hole in gunwale 15 after which tubular body member 22 is inserted therein until flange member 17 rests against the upper surface of the gunwale. Because plate member 12 is dimensioned to engage the upper end of rim 19 on socket member 10 where rim 32 is seated on the gunwale, it is only necessary to place plate 12 in overlying position with socket member 10 so that aperture 34 is aligned with aperture 21 and rim 36 fits within the central aperture in washer 30. Wood screws or other preferred fastener 37 are then inserted through appropriate apertures in the plate member 12 thereby fixedly securing plate member 12 to gunwale 15 and securely positioning flange 17 of socket member 22 between gunwale 15 and plate 12. This assembly and installation procedure insures that washer 30 and spring 23 are also properly retained in position.

The fender line is passed through eye 38 in plug member 13 and secured thereto by an appropriate knot as seen in phantom at 39 in FIG. 1. Plug 13 is a generally elongated tubular structure having a tapered end 40 and having an annular band of reduced cross section or groove 42 formed therein adjacent eye 38. The maximum diameter of plug 13 is slightly less than that of aperture 21 and tubular body 22 of socket member 10 so that tapered end 40 passes between the forces legs 24 and 25 of spring 23 apart. Further insertion of plug member 13 brings the spring legs 24 and 25 into registry with groove 42 thereby to securely hold plug 13 in the socket assembly.

As is clearly seen in FIG. 3 groove 42 and plug 13 is provided with downwardly sloping side walls to facilitate withdrawal of plug 13 from socket 10 by acting as cam surfaces to spread legs 24 and 25. Such a feature is of no disadvantage in this type of installation since the fender and fender line extend downwardly from the eye and there is no force exerted on the plug in use which would cause it to rise out of the socket.

From the foregoing description of the construction installation, and assembly and disassembly features of this fender lock or fastening device it is clearly seen that there are very few component parts to this structure and that these parts are exceptionally easy and economical to fabricate. It has been found that this structure is ideally suited to construction with molded plastics. For example, the plug member 13 can be molded of Delrin and socket member 10 can be molded of nylon with washer 30, spring 23 and plate 12 being formed of suitable marine alloys.

As most clearly seen in FIGS. 1 and 2, it is noted that my improved fender lock assembly provides an exceptionally pleasing appearance both with the plug in posi-

tion as seen in FIG. 1 and with the plug removed as seen in FIG. 2. Such an arrangement eliminates protruding sharp corners or other projections on which clothing and lines may snag. In fact, as most clearly seen in FIG. 2, removal of the plug with the fender to permit stowage thereof leaves an essentially flush mounting plate as the only visible feature. Such an arrangement is of particular value on small boats where space is at a premium.

In addition to the foregoing advantages it is clear that installation of the preferred embodiment of this invention merely requires only drilling of the proper diameter hole in the gunwale of the boat whereafter the remainder of the lock assembly is slipped into place and the plate is fastened down with only two wood screws. The simple installation procedure, as well as the extreme durability and economy of this structure, is of great value to small boat owners.

As will be apparent to persons skilled in the art, various modifications and adaptations of the structure above described will become readily apparent without departure from the spirit and scope of the invention, the scope of which is defined in the appended claims.

I claim:

1. A releasable fastening device for securing fenders and the like to boats comprising a socket member having a lower surface adapted for engagement with the gunwale of the boat and having a closed tubular body depending therefrom for insertion into an aperture formed in the gunwale, said socket member having an upstanding peripheral rim, a generally C-shaped wire spring dimensioned to resiliently engage the peripheral rim on said socket member and having inwardly extending leg portions partially obstructing the socket opening, an annular washer overlying said spring and dimensioned to closely fit within the upstanding peripheral rim of said socket, a plate dimensioned to overlie said socket member and engage the rim thereon, said plate having an aperture formed therein, a downwardly depending rim on said aperture dimensioned to closely fit within the opening of the annular washer to align the aperture of the plate with the opening of the socket, means for fastening said plate to the gunwale of the boat, and a plug having an eye formed at one end thereof for securing the fender

line and having its other end dimensioned to fit within the plate aperture and socket opening, said plug having an annular groove formed therein engageable with the inwardly extending legs on said spring member thereby to retain said plug in said socket.

2. A releasable fastening device for securing fenders and the like to boats comprising a socket member having an elongated tubular body adapted to extend into an aperture in the deck of a boat and flange means extending outwardly therefrom, said flange means having a lower surface adapted to engage the upper surface of the deck of the boat and including an annular washer means aligned with the opening in said socket member, a plate dimensioned to overlie and removably engage said socket member and having an aperture formed therein, said aperture being at least equal in size to the aperture in said tubular body and means downwardly depending from said plate for engaging said annular washer means to align the aperture of said plate with the opening of said tubular body, means for fastening the plate to the deck of the boat, a plug having means on one end thereof for connecting the fender line thereto and having its other end dimensioned to fit within the plate aperture and closely within said elongated tubular body to extend substantially throughout the full length thereof, spring means on said flange partially obstructing the socket opening, and means on said plug member engageable with said spring means to retain said plug in said socket.

References Cited in the file of this patent

UNITED STATES PATENTS

894,115	Case	July 21, 1908
1,169,099	Wilcox et al.	Jan. 18, 1916
1,321,974	Bourke	Nov. 18, 1919
1,430,787	Bourke	Oct. 3, 1922
1,655,536	Dumm	Jan. 10, 1928
2,455,765	Harvey	Dec. 7, 1948
2,768,535	Brown	Oct. 30, 1956

FOREIGN PATENTS

282,191	Germany	Feb. 18, 1915
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