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FENDER FOR SECURING SMALL BOATS TO DOCKS

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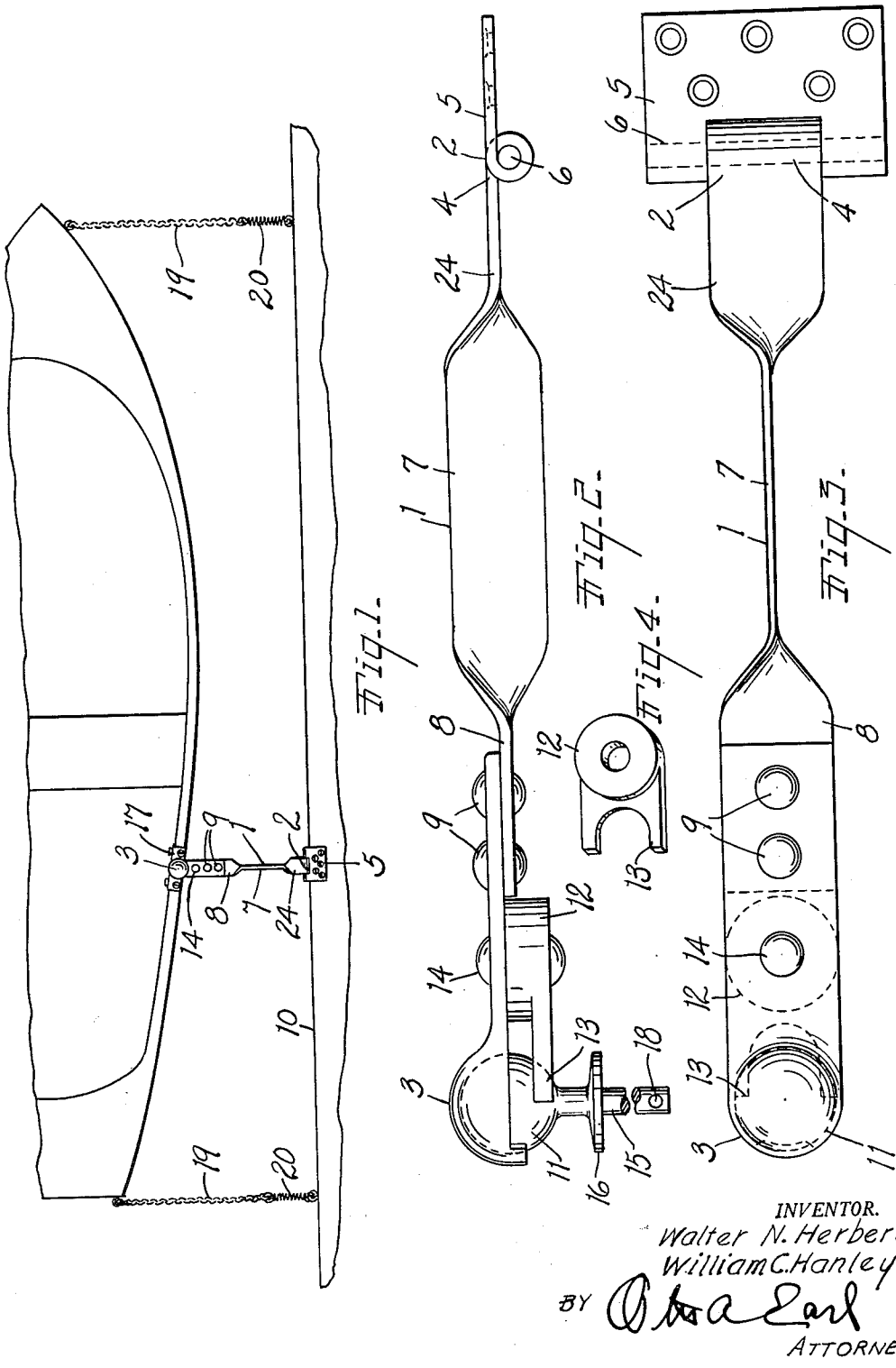


Fig. 1.

Fig. 2.

Fig. 4.

Fig. 3.

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FENDER FOR SECURING SMALL BOATS TO DOCKS

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2 Claims. (Cl. 114—230)

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This invention relates to improvements in a fender for securing small boats to docks.

The principal objects of this invention are:

First, to provide an extremely simple and effective device for securely mooring a small boat in spaced relationship alongside of a dock.

Second, to provide a combined mooring and fending device that will hold a small boat away from the side of a dock while permitting movement of the boat as it is affected by waves.

Third, to provide a mooring device which permits a small boat to be locked to a dock, but out of contact with the dock to prevent marring of the boat.

Fourth, to provide a mooring device which is permanently attachable to a dock and swingable out of the way when not in use.

Fifth, to provide a mooring device which is quickly attachable to a boat.

Other objects and advantages of our invention will be apparent from a consideration of the following description and claims.

The drawings, of which there is one sheet, illustrate a preferred embodiment of our fender.

Fig. 1 is a fragmentary plan view of a small boat moored to a dock by our fender.

Fig. 2 is a side elevational view partially broken away of the fender.

Fig. 3 is a plan view of the fender.

Fig. 4 is a perspective view of a portion of the socket joint of the fender.

As is well known, small boats moored or tied alongside of a dock often are damaged or marred by reason of the waves causing the boat to rock and move relative to the dock. Various expedients such as spaced docks or boat wells and mooring beams have been devised to prevent this damage. Our fender permits a boat to be moored alongside of a single straight dock without fixed mooring beams projecting from the dock and without damage to the boat.

Our fender consists of a strut generally indicated at 1 having a hinge 2 at one end thereof and a socket element 3 at the outer end thereof. The body of the strut 1 consists of a strap of resilient steel having an eye 4 at its inner end and which is secured to the hinge leaf 5 by the hinge pin 6. The strap 4 has a central portion 7 bent into a vertical plane and an outer end 8 bent back into a horizontal plane and secured to the socket element 3 by the rivets 9. The hinge leaf 5 is provided with screw holes for fastening to the edge of a dock 10 as in Fig. 1 with the hinge pin 6 aligned with or projecting slightly beyond the edge of the dock.

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The socket element 3 opens downwardly and receives a ball 11. The ball is swivelly retained in the socket by the retaining bracket 12 having a U-shaped outer end 13 engageable with the under surface of the ball. The retaining bracket is permanently secured to the socket element by the rivet 14. Projecting from the bottom of the ball 11 is a pin 15 and the pin is desirably provided with a collar or flange 16. The pin 15 thus has a universal connection including a horizontal pivotal connection to the strut 1.

The depending pin 15 is of such a size as to pass through openings provided in the gunwale of the boat. Practically the pin is made the same size as the pins of standard oar locks and is received in the oar lock socket 17 of the boat. If the boat is not provided with an oar lock socket, a suitable similar hole can be formed through the gunwale. The lower end of the pin 15 is provided with a transverse bore 18 adapted to receive the hasp of a padlock so that the pin and ball can be securely locked to the boat if desired.

With the hinge leaf 5 secured to the dock and the pin 15 engaged with the oar lock socket, bow and stern mooring lines 19 are connected between the boat and the dock so that the boat is effectively moored in spaced relationship with the side of the dock. If desired, springs 20 can be interposed in the mooring lines to yieldably resist swinging motion of the boat about the pin 15. The relatively rigid character of the strut 1 holds the boat away from the dock while flexing of the vertical center portion 7 permits limited longitudinal motion of the boat as it is affected by waves or current. Rising or falling movement of the boat with the waves is accommodated by vertical swinging of the strut on the hinge pin 6. When the fender is not in use, the strut 1 may hang downwardly alongside of the dock from the hinge pin 6 where it does not interfere with persons walking on the dock or boats coming close alongside of the dock.

Our fender device is inexpensive and simple to manufacture and use and at the same time is entirely effective and adaptable to practically any small boat.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. A fender device for mooring small boats comprising a strut having a horizontally hinged hinge leaf on its inner end adapted to be secured to a dock, a downwardly opening socket element on the outer end of said strut, a ball element permanently and swivelly received in

said socket element, and a pin depending from said ball element and having a collar spaced from its lower end, said pin being adapted to be received in the oar lock socket of a boat and having a transverse bore in its lower end adapted to receive the hasp of a padlock, said strut being formed of flat resilient metal and having a central portion between said hinge and said socket element bent into a vertical plane.

2. A fender device for mooring small boats comprising a strut having a horizontally hinged hinge leaf on its inner end adapted to be secured to a dock, downwardly opening socket element on the outer end of said strut, a ball element permanently and swivelly received in said socket element, and a pin depending from said ball element, said pin being adapted to be received in the oar lock socket of a boat, said strut being formed of flat resilient metal and having a central portion between said hinge and said socket element bent into a vertical plane.

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