June 14, 1960 G. G. WAIDT 2,940,714

DOCK SUPPORTING BRACKET

Filed Aug. 15, 1958

Fig. 2

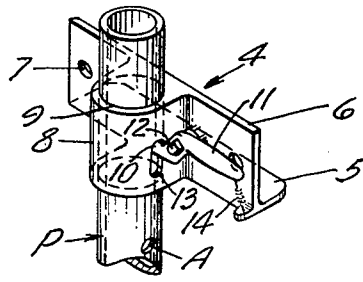


Fig. 1

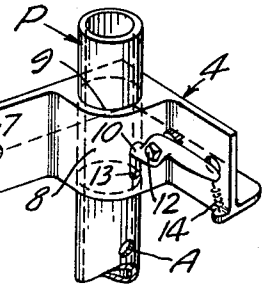
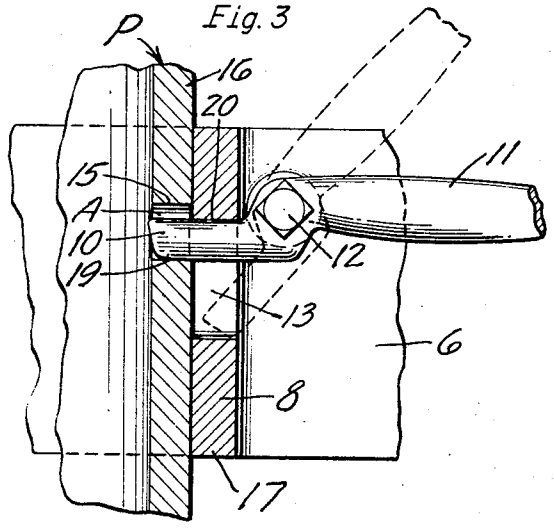


Fig. 3



INVENTOR

BY George G. Waidt

Williamson, Schroeder & Palmatier

ATTORNEYS

United States Patent Office 2,940,714 Patented June 14, 1960

2,940,714

DOCK SUPPORTING BRACKET

George G. Waidt, 6 12th Ave. N., Fargo, N. Dak.

Filed Aug. 15, 1958, Ser. No. 755,322

5 Claims. (Cl. 248—221)

This invention relates to brackets and in particular to a bracket for securing a supported structure such as a dock to vertical supporting elements.

Docks are normally installed over water at a height suitable to the use for which the dock is intended. However, water levels frequently rise or fall resulting in the dock being too close or too far away from the water causing inconvenience to the dock users or necessitating the raising or lowering of the dock.

An object of my invention is to provide a new and improved dock supporting bracket of simple and inexpensive construction and operation.

Another object of my invention is a dock supporting bracket which may be readily moved up or down on a supporting post so as to permit the dock to be readily raised or lowered to any height above the water.

Another object is a dock supporting bracket of simple design and construction which may be readily secured to or disengaged from a supporting post without resorting to the use of conventional and inconvenient means of attachment such as nuts and bolts.

Still another object is a dock supporting bracket which is adjustably secured to a supporting post in such fashion that the dock may be raised to a higher level by simply applying an upward force to the dock and/or bracket.

A still further object is a dock supporting bracket for engaging an apertured supporting post, the bracket being automatically supportingly secured to the post upon becoming aligned with one of the apertures thereof.

These and other objects and advantages of my invention will more fully appear from the following description made in connection with the accompanying drawings, wherein like reference characters refer to the same or similar parts throughout the several views.

Figs. 1 and 2 are perspective views of two forms of the bracket of my invention in assembled relationship to a vertical supporting element; and

Fig. 3 is a partial vertical cross sectional view of my invention in assembled relationship to a vertical supporting element.

The bracket of my invention consists of a body member indicated generally by 4, said body member 4 having a horizontal seat 5 and a vertical engagement wall 6 which is provided with apertures 7 for securing the bracket to the stringer of a dock. A post receiving sleeve 8 is formed integrally of the vertical wall 6 and defines a vertical cylindrical opening 9 therein, said sleeve encompassing a vertical support post P, in close relation thereto, and serving to guide the upward and downward movement of the bracket on the post. A securing pin 10 is integrally formed with handle 11 and pivotally attached to vertical wall 6 by means of retaining pin 12, and is adapted for downward swinging.

An opening 13 is provided in the sleeve 8 for swingably receiving securing pin 10 therethrough. Post P has a number of longitudinally spaced apertures A for receiving securing pin 10 in supporting relationship. Tension spring 14 is attached to handle 11 and vertical wall 6 and serves to create a constant downward pull on handle 11, which in turn causes securing pin 10 to be constantly urged upwardly.

In operation, opening 13 is properly aligned with one of the apertures A of post P at the desired level and securing pin 10 is swung through sleeve opening 13 and projected into supporting engagement with aperture A. In secured position, securing pin 10 rests on and is supported by shoulder 19 of aperture A of post P, with downwardly facing abutment surface 20 of sleeve 8 engaging and being supported by securing pin 10. To change the vertical position of the dock, the bracket or dock is lifted or pushed upwardly and securing pin 10 is swung out of aperture A assuming the position indicated by the dotted lines in Fig. 3. The dock may then be raised or lowered as desired with securing pin 10 automatically engaging the next highest or lowest aperture A upon becoming aligned therewith due to the constant downward pull on handle 11 by spring 14. If the dock is to be raised or lowered more than the distance of the next highest or lowest aperture A as the case may be, securing pin 10 is kept out of engagement with intermediate apertures A by holding handle 11 until opening 13 is in alignment with the appropriate aperture A at the desired level. The dock can be readily raised to a higher elevation by merely lifting or pushing the dock or brackets vertically upwards. Upon so doing, securing pin 10 makes contact with the upper shoulder 15 of aperture A and pivots downwardly on retaining pin 12 until securing pin 10 is free of aperture A, securing pin 10 remaining in contact with the exterior surface 16 of post P until coming into alignment with the next highest aperture A at which time it automatically swings into said aperture A because of the downward pressure being constantly asserted on handle 11 by spring 14.

The invention is not limited to the forms shown and may assume other forms. For example, securing pin 10 and handle 11 may be pivotally mounted anywhere on vertical wall 6, or may be pivotally mounted to a bifurcated pin mounting portion projecting from sleeve 8. Securing pin 10 need not pass through an opening in sleeve 8 but may be mounted so as to pass beneath sleeve 8 in close relationship thereto into aperture A with the lower edge 17 of sleeve 8 resting on and being supported by securing pin 10 when the dock is in secured position. Body member 4 may be straight as shown in Fig. 2 or may assume an angular configuration as in Fig. 1. Post P may be of solid or tubular construction and the invention may be utilized with or without the attached spring 14 although the use of spring 14 is the preferred form of my invention. Spring 14 may be attached in any manner which will result in securing pin 10 being constantly biased upwardly. The guide member does not have to completely enclose the supporting post as does sleeve 8 in the drawings. A partial enclosure which adequately secures the bracket to the post is sufficient.

It will, of course, be understood that various changes may be made in the form, detail, arrangement and proportion of the parts without departing from the scope of my invention which consists of the matter described herein and set forth in the appended claims.

What I claim is:

1. A bracket for adjustably securing a supported structure such as a dock on an apertured supporting post, said bracket comprising a body member adapted for attachment to the supported structure, a generally horizontally oriented pin pivoted on the bracket for downward swinging and projecting into the aperture of the post, and means guiding the body member on the post for upward and downward movement and defining a downwardly facing abutment surface engaging the pin intermediate the

aperture and the pivot point of said pin and preventing upward swinging thereof.

2. A bracket for adjustably securing a supported structure such as a dock on an apertured supporting post, said bracket comprising a body member adapted for attachment to the supported structure, a post-encompassing means on the body member guiding the body member on the post in upward and downward movement, said post-encompassing means having an opening therein defining a downwardly facing abutment surface, and a pin pivoted on the bracket for downward swinging and projecting through the opening in engagement with the abutment surface intermediate the aperture and the pivot point of said pin and projecting into the aperture of the post.

3. A bracket for adjustably securing a supported structure such as a dock on an apertured supporting post, said bracket comprising a body member adapted for attachment to the supported structure, a generally horizontally oriented pin pivoted on the body member for downward swinging and projecting into the aperture of the post, abutment means engaging the pin intermediate the aperture and the pivot point of said pin and limiting the upward movement of the pin, and post-encompassing means guiding the body member on the post in upward and downward movement.

4. A bracket for adjustably securing a supported structure such as a dock on an apertured post, said bracket comprising a body member adapted for attachment to the supported structure, a generally horizontally oriented pin pivoted on the body member for downward swinging and projecting into the aperture of the post, tensioned means for biasing the pin upwardly, and means guiding the body member on the post in upward and downward movement and defining a downwardly facing abutment surface engaging the pin intermediate the aperture and the pivot point of said pin and preventing upward swinging thereof.

5. A bracket for adjustably securing a supported structure such as a dock on an apertured post, said bracket comprising a body member adapted for attachment to the supported structure, a generally horizontally oriented pin connected to an operating handle and pivoted on the body member for downward swinging and projecting into the aperture of the post and supported thereby, a tensional member attached to the operating handle and the bracket urging said pin upwardly, and a post-encompassing means on the body member guiding the body member on the post for upward and downward movement, said post-encompassing means having a pin receiving slot therein defining a downwardly facing abutment surface engaging the pin intermediate the aperture and the pivot point of said pin and preventing upward swinging thereof.

References Cited in the file of this patent

UNITED STATES PATENTS

446,472	Roberts	Feb. 17, 1891
1,076,588	Lemirand	Oct. 21, 1913
1,599,616	Hamburger	Sept. 14, 1926
2,851,287	Tangard	Sept. 9, 1958