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MARINE DOCK

Filed June 22, 1960

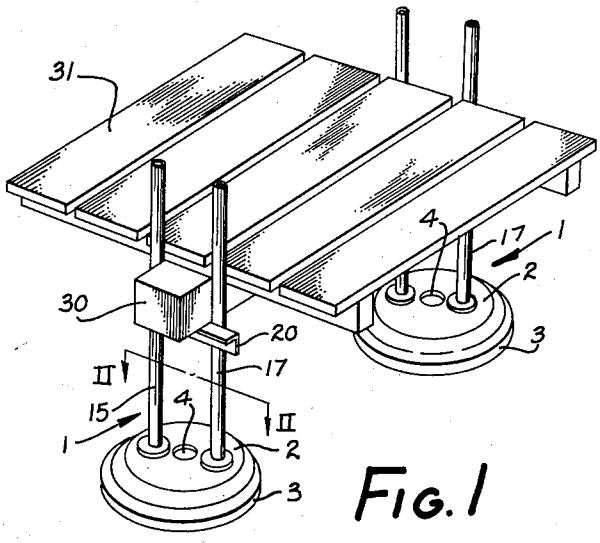


FIG. 1

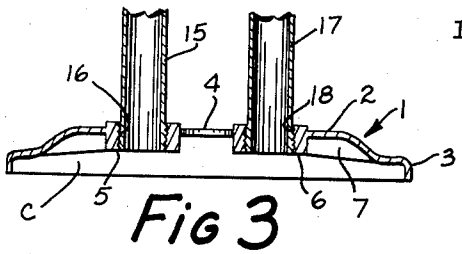


FIG 3

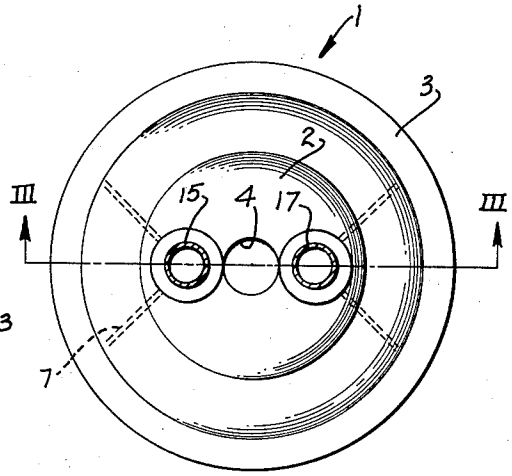


FIG. 2

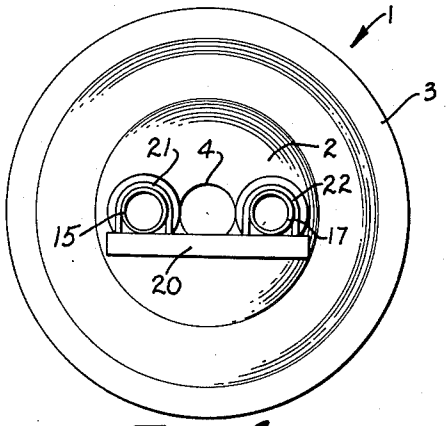


FIG. 4

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MARINE DOCK

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This invention relates to a marine dock. More specifically, this invention relates to a support for a boat dock and the like.

Many problems are encountered when one attempts to build a boat dock at a lake cottage or the like. The supporting posts for the dock must often be sunk into ground which consists primarily of mud, necessitating the sinking of such posts to a great depth. If the bottom of the lake happens to be sandy, it is very difficult to pound the posts deep enough into the sand. Further, one often encounters rocks and the like in the bottom of the lake, making it almost impossible to properly sink and position the supporting posts.

The winter weather, especially in the northern states, is such that a solid boat dock is often ruined due to the reactant forces of ice forming on the lake. In the spring when the ice melts, many such boat docks are literally smashed to pieces. Once a boat dock is permanently established, one can never be sure that upon arrival of the following spring, the water will not be considerably higher or lower. Consequently, the boat dock must be completely rebuilt in order to be practically operable with such changes in the level of the water.

These are but a few of the problems everyone owning and maintaining a conventional boat dock has experienced. It is therefore an object of this invention to provide a support for a boat dock which does not have to be pounded into the ground.

Another object of this invention is to provide such a support which functions equally well regardless of whether the bottom of the lake is comprised of mud, sand or gravel.

Another object of this invention is to provide such a support which maintains an excellent grip on the bottom of the lake.

Another object of this invention is to provide such a support having a base member with a cavity in the bottom thereof, utilizing a vent in its top in order to assure that the base positions itself rigidly on the bottom of the lake.

A further object of this invention is to provide such a support which enables one to quickly assemble a boat dock and break it down for storage after a season's use.

A still further object of this invention is to provide such a support which is completely adjustable, enabling one to accommodate the boat dock to any level of water.

A still further object of this invention is to provide such a support which is simple in construction, therefore easily fabricated and maintained. The support of this invention may be completely disassembled with minimal effort for compact shipment and storage.

These and other objects of this invention will become obvious to those skilled in the art of boat docks and supports therefor, upon reading the following specification in conjunction with the accompanying drawings, wherein:

FIG. 1 is a perspective view of a boat dock utilizing a pair of supports comprising this invention;

FIG. 2 is a cross sectional view taken along the plane II—II of FIG. 1;

FIG. 3 is a cross sectional view taken along the plane III—III of FIG. 2; and

FIG. 4 is a plan view of the support comprising this invention.

Briefly, this invention relates to a support for a boat dock and the like comprising a base member having a substantial cross sectional area and shaped to provide a

cavity in the bottom thereof, together with means associated with this cavity to expose the cavity to the outer portion of the base. In a more limited aspect of this invention, supporting poles are removably secured to the top of this base member extending upwardly therefrom, together with a removable bracket being secured to and lying between the supporting poles a spaced distance from the tops thereof.

Referring more specifically to the drawings, the reference numeral 1 designates the support comprising this invention (FIG. 1). The support 1 includes a base member 2 together with a pair of supporting poles 15 and 17.

The base member 2 is of substantial cross section and weight. In the embodiment shown, the base member 2 is a stamped, cup-shaped metal member including a depending flange 3 about its entire perimeter (FIGS. 2 and 3). An enlarged cavity C is thus formed at the underside of the base member 2. A vent 4 is positioned in the top of the base member 2, the vent 4 communicating with the cavity C at the underside thereof. A pair of threaded recesses 5 and 6 are provided in the top of the base member 2 adjacent the vent opening 4. A plurality of reinforcing ribs 7 are provided within the cavity C.

In the embodiment shown, the supporting poles 15 and 17 comprise hollow, tubular members having the respective ends 16 and 18 thereof threaded. An angle bracket 20 is provided for detachable securement between the supporting poles 15 and 17 (FIG. 4). For this attachment, a pair of U-bolts 21 and 22 envelop the supporting poles 15 and 17, extending through the angle bracket 20 and secured thereto in the conventional manner. It will be noted from FIG. 1 that a beam 30 may be positioned between a pair of supports 1, the beam 30 supporting a conventional dock 31 and resting on the angle brackets 20 and held between the supporting poles 15 and 17 of the two supports.

It will now be understood that the support comprising this invention may be shipped and stored in knocked down condition, the base member 2, the supporting poles 15 and 17, and the bracket 20 all being detachable one from the other. Each support 1 is assembled as follows. The threaded ends 16 and 18 of the supporting poles 15 and 17 respectively are threaded into the recess 5 and 6 in the top of the base member 2. The angle bracket 20 is then positioned between the supporting poles 15 and 17, the U-bolts 21 and 22 enveloping the supporting poles and extending through and secured to the bracket 20.

In building the boat dock, pairs of leg supports 1 are utilized to support the dock. It will be obvious that the number of such pairs of supports will be dependent upon the length of the dock to be built. The supports 1 are merely dropped into the water, the base member 2 thereof engaging the bottom of the lake. Due to the provision of the vent 4 in the top of the base member 2, sand and water are allowed to escape from the cavity C as the flange 3 digs into the bottom of the lake. Due to the size of the cavity and the weight and cross sectional area of the base 2, the flange 3 digs deeply into the bottom of the lake. This is true regardless of the composition of the bottom of the lake. The base member 2 will continue to sink, water and sand or mud flowing through the vent 4, until the cavity C is filled and the flange 3 is finally settled. A pair of supports 1 are sunk a spaced distance a part, depending on the width of the dock, the supporting poles 15 and 17 being aligned generally parallel with the edges of the dock. One then merely positions the supporting means for the dock, such as the beam 30, on the brackets 20 between the poles 15 and 17. The weight of the dock tends to render the bases of the supports completely immovable with respect to the bottom of the lake. It will be noted that the brackets may be raised or lowered by loosening the U-

bolts 21 and 22 and sliding the brackets along the poles. This allows for simple and quick adjustment of the height of the dock with respect to the water. With these simple steps, the dock is built and rigidly positioned due to the immovability of the base members 2 at the bottom of the lake.

As stated previously, any time a change in water level occurs, the height of the dock may be quickly and simply changed to correspond therewith. When the season for using the dock is past, the dock may be dismantled as quickly as it was erected. The dock 31 is simply lifted from the support 1. Each support 1 may then be pulled from the bottom of the lake. By simply loosening the U-bolts 21 and 22, the brackets 20 are removed from the supports. Further, the supporting poles 15 and 17 are unthreaded from the base 2. Consequently, the supports may be compactly stored, awaiting another season's use.

It will now be understood that the supports disclosed in this invention greatly simplify the erection of a dock. Further, these supports function equally well regardless of the particular terrain at the bottom of the lake. Due to the novel base utilizing a cavity and vent structure, the supports are rendered immovable by simply setting them in the water. The supports may be quickly and simply disassembled for compact shipping or storing. The supports enable one to quickly and simply adjust the height of the boat dock with respect to the level of the water, always assuring that the dock will be positioned for maximum efficiency and comfort. The supports are simple in construction making them easy to fabricate and maintain.

While only one embodiment of this invention has been shown and described, it may be possible to practice this invention through the utilization of certain other embodiments without deparing from the spirit and scope of the invention. Such other embodiments are to be included as a part of this invention as defined by the following claims.

I claim:

1. A support for a boat dock and the like, comprising: a base member having a substantial cross sectional area; said base section shaped to include depending flanges extending downwardly therefrom to form a cavity at the underside thereof; a vent in the top of said base member communicating with said cavity; a pair of spaced supporting poles secured to said top of said base member and extending upwardly therefrom; and a bracket removably secured to and extending between said poles a spaced distance from the tops thereof.

2. A support for a boat dock and the like, comprising: a base member having a substantial cross sectional area; said base section shaped to include depending flanges extending downwardly therefrom to form a cavity at the underside thereof; a vent in the top of said base member communicating with said cavity; a pair of threaded recesses in said top of said base member, adapted to removably receive a pair of supporting poles; a pair of supporting poles having threaded ends removably secured in said recesses in said top of said base member and extending upwardly therefrom; a supporting bracket; and a pair of U-bolts extending about said supporting poles and through said bracket, removably securing said bracket to said poles a spaced distance from the tops thereof.

3. A support for a boat dock and the like, comprising: a base member having a substantial cross sectional area; said base section shaped to include depending flanges extending downwardly therefrom to form a cavity at the underside thereof, said cavity extending to the upper portion of said base member; a vent in the top of said base member communicating with said cavity; a pair of threaded recesses in said top of said base member communicating with said cavity, adapted to removably receive a pair of supporting poles; a pair of hollow supporting poles having threaded ends removably secured in said recesses in said top of said base member and extending upwardly therefrom; a supporting bracket; and a pair of U-bolts extending about said supporting poles and through said bracket, removably securing said bracket to said poles a spaced distance from the tops thereof.

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