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(54) **POLESOX**

(57) **ABSTRACT**

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A protective cover and method of use thereof, used to reduce noise and wear as a result of contact of a boat against a piling, pole, or bumper of an associated boat lift. The cover is similar to a sock in structure and can be made from flexible fabrics or other flexible polymeric materials that are water proof or water impermeable. These materials can be decorative in nature with eye friendly indicia printed thereon. The protective cover can be made of UV resistant materials to reduce degradation under normal to extreme UV exposure and be made of materials that have sound dampening or sound absorbing characteristics, but have sound suppression or noise reduction properties that when rubbed against produce substantially low sound levels. In use, the protective cover is placed over a piling or vertical pole of a boat lift. The protective cover is preferably sized to engage and encapsulate that portion of the piling that is above the surface of the water and most likely to come into contact with the boat hull. After placement on the piling, the protective cover is firmly secured to the piling by suitable fastening members.

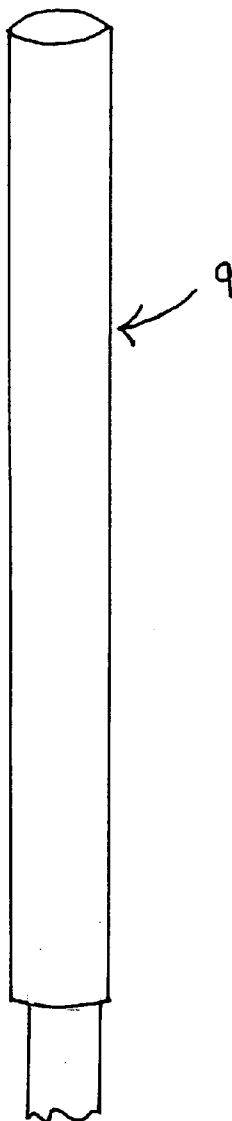
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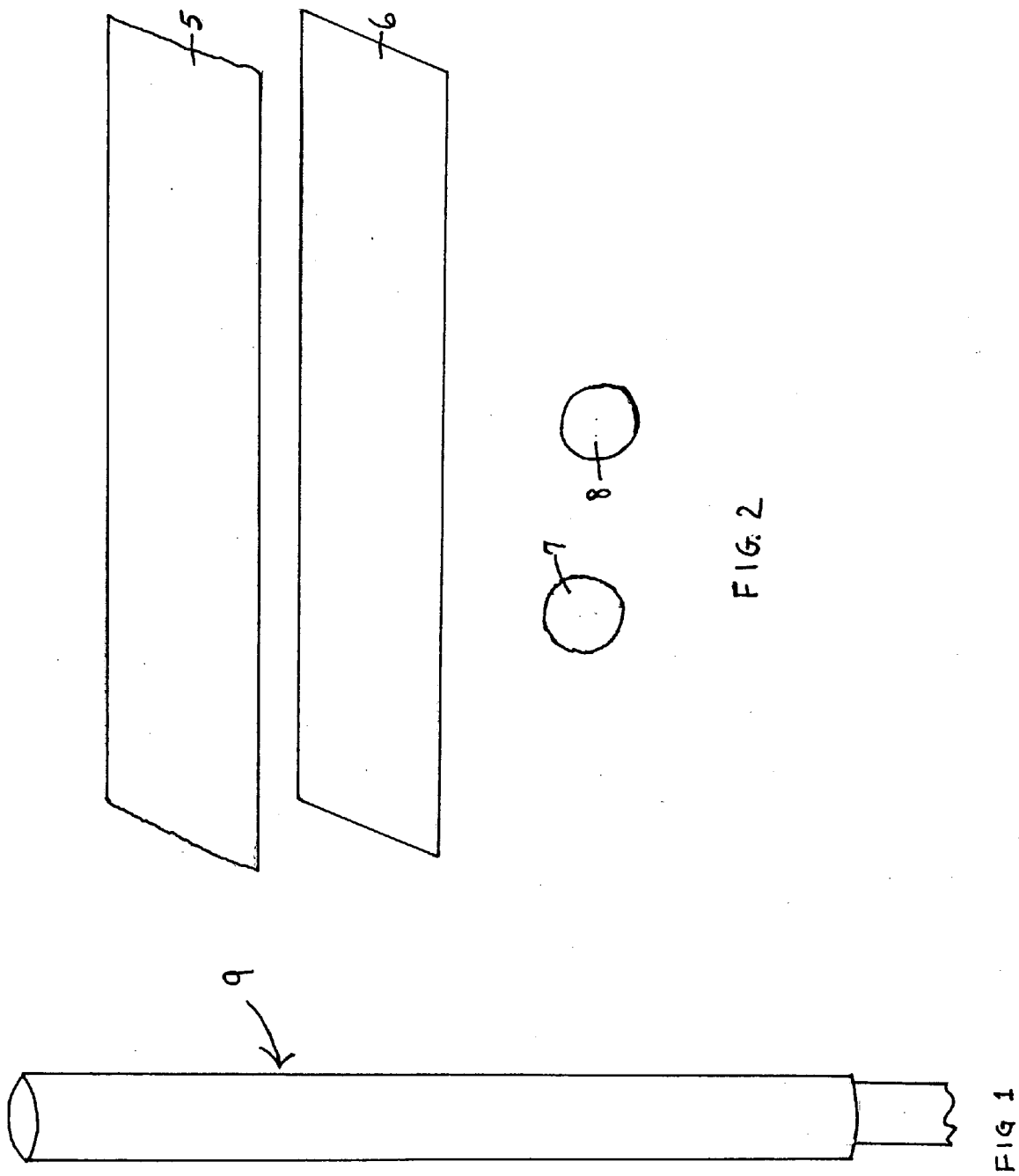
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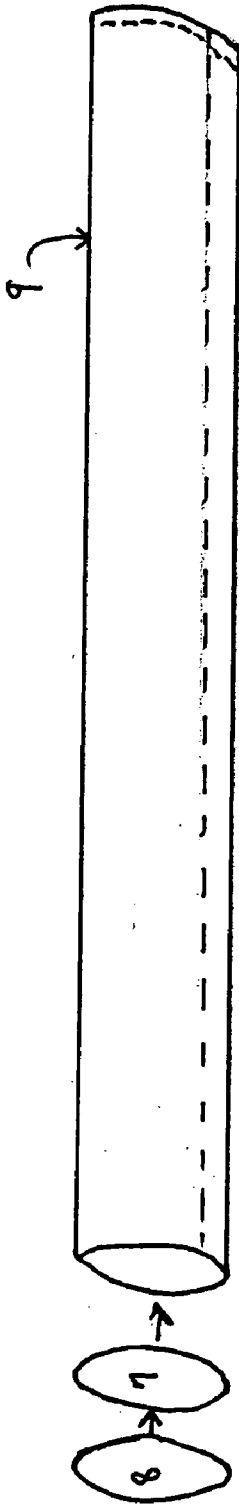
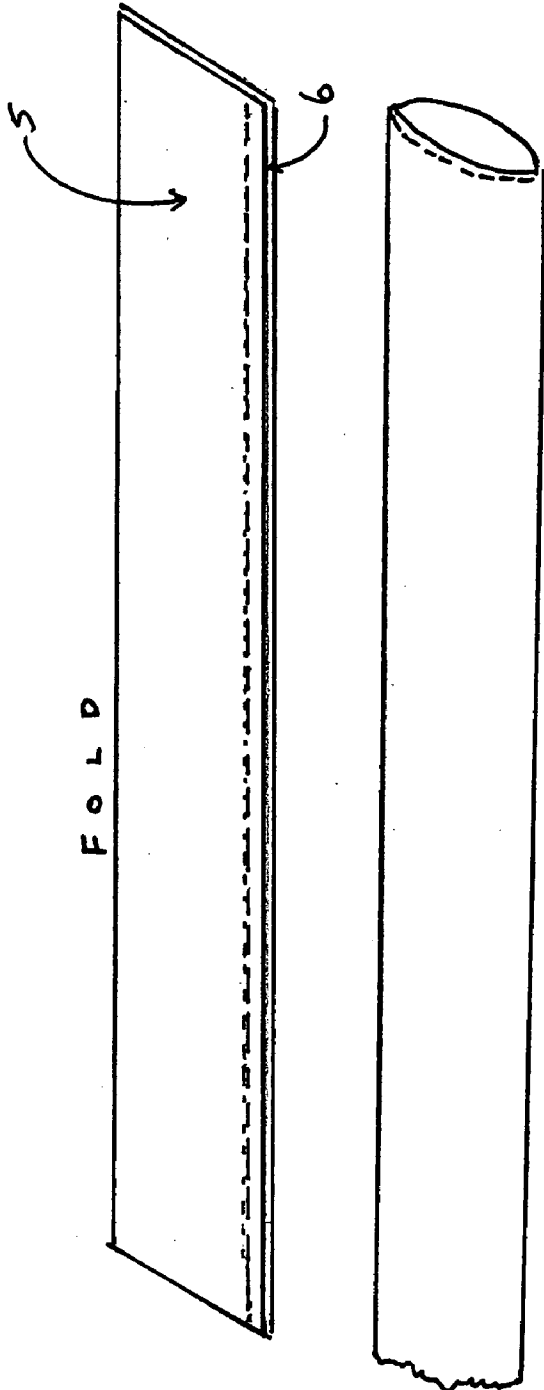


FIG 4

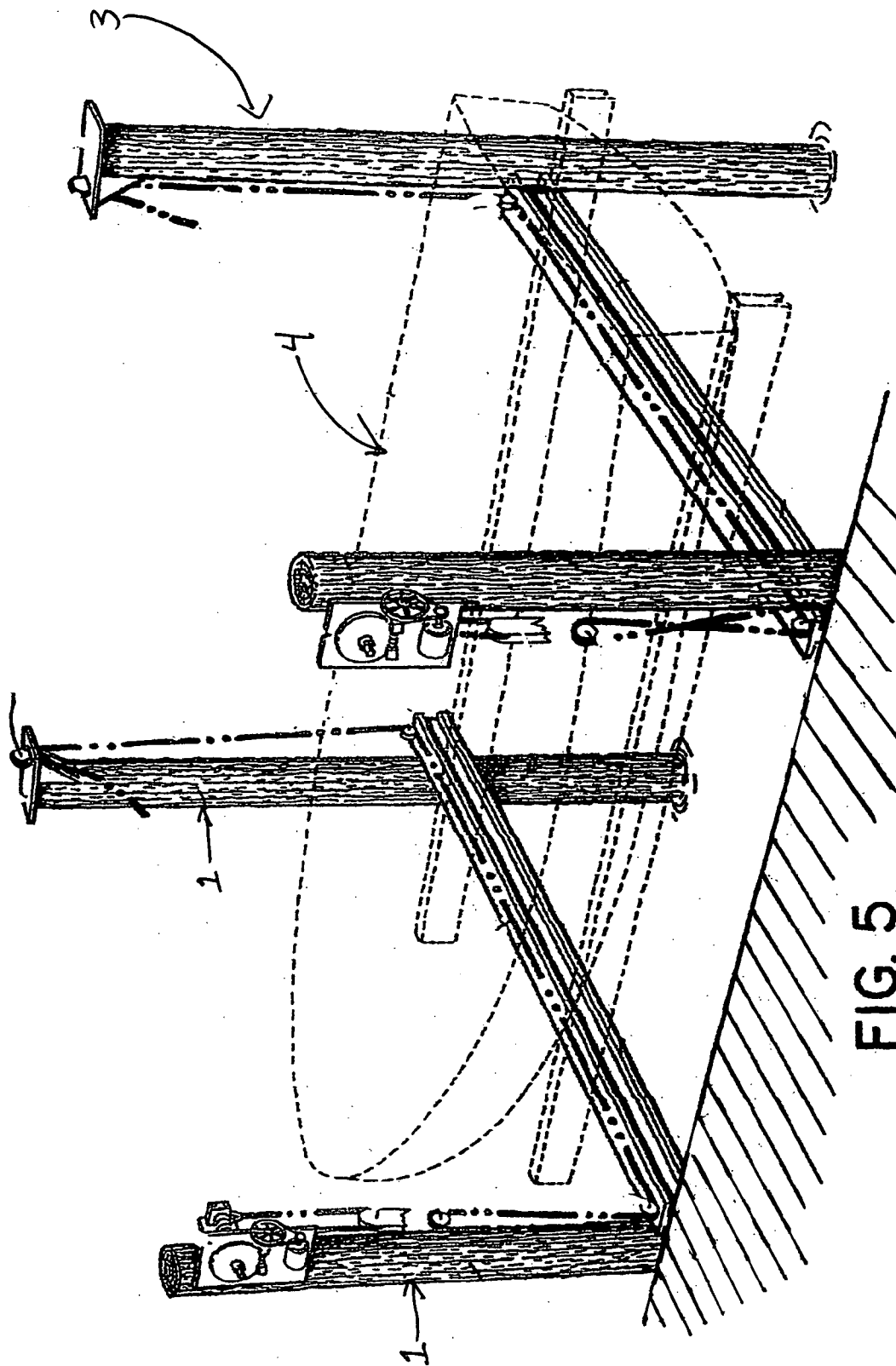


FIG. 5
(Prior Art)

POLESOX

FIELD OF THE INVENTION

[0001] This invention generally relates to lifting devices for boats. More specifically, the invention pertains to protective covers used to reduce noise and wear as a result of contact of a boat against a piling or bumper of an associated boat lift.

BACKGROUND OF THE INVENTION

[0002] 1. The Field of the Invention

[0003] Boat lifts have been in existence for quite some time. Many boat owners that live adjacent lakes, rivers, or harbors, tend to keep their boats moored in water as a matter of convenience. However, in saltwater, marine organisms may foul the hull of boats, and in fresh or saltwater, the wakes of passing boats, high winds, and storm or tidal surges can create unwanted movement of a docked vessel. Consequently, the use of a boat lift reduces the damage and wear a boat can sustain as a result of these undesirable and adverse conditions.

[0004] Boat lifts typically have vertical poles that function as retaining bumpers or fenders. These poles are also commonly referred to as pilings or logs, depending upon application and can be made of a variety of materials. These poles may be fabricated from aluminum, other non-corrosive metals, wood, PVC, foamed plastics or other polymeric materials, and may or may not have protective coverings. A boat operator may use the pilings as a guide when docking his or her boat, or as a means to restrict movement of the boat during the aforementioned adverse conditions. When a boat is placed in a body of water, as by a boat lift, wave movement may cause the boat to float vertically or horizontally against the pilings. The severity of this movement is commensurate with the degree of wave movement. As the boat rubs against the pilings, it is not uncommon to hear extremely loud squeaking or squealing sounds. These sounds are highly undesirable, especially when the boat user or users are relaxing, over-nighting, sleeping, or working in or about the boat when so docked at a marina. Many boat owners may keep their boats at marinas and choose to spend time staying on the boat at the marina instead of travelling.

[0005] There have been attempts to reduce this noise associated with boats “rubbing” up against pilings. It is not uncommon at marinas to see “homemade” remedies that try to address these noise concerns. These homemade remedies may come in the form of fastening fabric or towels to pilings, secured thereto by duct tape, in an attempt at noise reduction or cancellation. Of course such homemade remedies tend to be unsightly and more importantly, they tend to be extremely short lived.

[0006] 2. Description of Related Art

[0007] An examination of the prior art of record discloses various “protective” covers, bumpers or guides used in the boat lift or marina arts. U.S. Pat. No. 4,653,420 to Johnson (herein “Johnson—420”), discloses a protective cover for boat hoist bumpers formed of two pieces of material, which are designed to overlap and attach around a boat bumper to protect the bumper from impact forces that would damage the foamed material from which the bumper is made. Johnson—420 fails to address noise concerns relative to wave movement impacted upon a boat that in turn rubs against any of the pilings or bumpers. U.S. Pat. No. 6,823,808 to Clary (herein “Clary—808”), discloses four guide bumpers attached to the

top of a movable bed frame of a boat hoist, and used to support a boat when fixed thereon. U.S. Pat. No. 4,923,336 to Schmidt (herein “Schmidt—336”), discloses a docking support apparatus that is telescopic in nature and has an outer cover that prevents ice build-up during freezing conditions. U.S. Pat. No. 7,117,805 to Shackelford, Jr. (herein “Shackelford, Jr.—805”), discloses a boat lift having pairs of locator poles made of flexible PVC pipe or materials that do not damage boat hulls and serve to direct the boat to its proper location relative to bunk boards. U.S. Pat. No. 7,300,229 to Fyfe et al (herein “Fyfe et al—229”), discloses a repair jacket made of fiber reinforced materials that serves to repair or reinforce wood pilings. U.S. Pat. No. 4,764,054 to Sutton (herein “Sutton—054”) and U.S. Pat. No. 5,516,236 to Williams et al (herein “Williams et al—236”), discloses similar piling jackets to those used in Fyfe et al—229. U.S. Pat. No. 5,562,364 to Darder-Alomar (herein “Darder-Alomar—364”), discloses a protective fender having a cushioning body attachable to dock posts and securable thereto by various fastening means. U.S. Pat. No. 7,393,157 to Macias (herein “Macias—157”), discloses a timber pile protection apparatus that is comprised of a flexible sleeve made of a water impermeable material that can be rolled or unrolled about a timber piling so as to protect it from organisms that can attach and grow thereon. U.S. Pat. No. 6,872,030 to Ashton et al (herein “Ashton et al—030”), discloses a composite wrapping that reinforces a wood piling and protects against deterioration from chemicals, weathering, and organisms. Finally, U.S. Pat. No. 5,411,424 to Hill (herein “Hill—424”), discloses a replaceable buoy cover or sock that is used to provide indicia for marker buoys and protect buoys from deterioration without the need of removal from water.

[0008] None of the aforementioned prior art of record addresses the utility of a noise suppression cover or sock that reduces or eliminates undesirable noises and sound levels associated with boats rubbing up against boat lift pilings. In summary, the prior art seeks to protect pilings from water, organisms, and structural deficiencies, as well as protect boat hulls from damage. What is needed is a means for suppressing sounds generated from movement of a boat against an associated piling or pole of a boat lift.

SUMMARY OF THE INVENTION

[0009] The present invention provides a means by which high pitched undesirable sounds, i.e., squeaking or squealing, associated with the rubbing or engagement of a boat hull against a piling, bumper, or other structural member of a boat lift, are considerably reduced or eliminated. This can be achieved by use of a noise suppression protective covering known as the PoleSox. The PoleSox is a sock like structure made from flexible fabrics or other flexible polymeric materials that are water proof or water impermeable. These materials can be decorative in nature with eye friendly indicia printed thereon. The PoleSox can be made of UV resistant materials to reduce degradation under normal to extreme UV exposure. More importantly, the PoleSox can be made of materials having sound suppression or noise reduction properties that when rubbed against produce substantially low sound levels. These materials can have sound absorbing or sound dampening characteristics and be fabricated from nylons, cloths, foams, woven and non-woven fabrics, polyesters, other polymeric materials or combinations thereof. The PoleSox structure is similar to that of a tube sock having an open end and an opposed closed end, the closed end

being securable over and encapsulating a pile or pole structure of a boat lift. The PoleSox can vary in size relative to the boat lift piling or associated structure to which it is attached, but is preferably (though not in any way limited to) 48 inches in length and 3 to 4 inches in diameter.

[0010] The PoleSox is closed at its top by circular pieces of fabric and open at the opposite end to slip over pilings, poles, and associated structure of the boat lift. This forms a tube that can be firmly secured to the boat lift pilings during normal use and easily removed for repair, replacement, or cleaning. The PoleSox ideally is placed and secured to a respective piling prior to a boat being placed on a lift. The PoleSox is first firmly secured to the associated piling/pole to prevent it from slipping off during engagement with the hull of the boat. Once the boat has been placed on the lift and placed in the water, adjustments to the PoleSox can be immediately made to insure that it will not be unintentionally removed from the piling or pilings. Further, appropriate length assessments of the PoleSox can be made based upon the length of piling that is above or below the water surface relative to the height of the boat that extends above the water surface or the section of boat hull most likely to engage one of the pilings. After optimum locations and desired lengths of the PoleSox have been determined, a user of the water docked boat may now enjoy peace and quiet at more tolerable noise levels now that the PoleSox has been installed, and thus reducing the high pitched undesirable sounds, i.e., squeaking or squealing, associated with the rubbing or engagement of a boat hull against a piling, bumper, or other structural member of a boat lift.

[0011] The PoleSox offers a low cost, low maintenance, low stress means for actively enjoying boat life at marinas or wherever a boat lover may have his or her serenity interrupted by unwanted and unsolicited noises associated with boat hulls rubbing up against pilings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 is a perspective view of the PoleSox cover on a pole or piling of a boat lift.

[0013] FIG. 2 is a plan view illustrating the pattern components of the PoleSox.

[0014] FIG. 3 is a plan view showing side pieces of the PoleSox attached together.

[0015] FIG. 4 is a plan view showing the top pieces of the PoleSox prior to attachment with the body or lower piece.

[0016] FIG. 5 is a prior art illustration of a traditional boat lift.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0017] FIG. 1 is a perspective view of the PoleSox (body) 9 shown as it is placed on and encapsulates a vertical pole or piling 1 of a traditional boat lift (not shown in FIG. 1). The PoleSox can be made of sound absorbing or sound dampening materials having sound suppression or noise reduction properties that when rubbed against produce substantially low sound levels. The PoleSox can be made from flexible fabrics or other flexible polymeric materials that are water proof or water impermeable. The pilings may be fabricated from aluminum, other non-corrosive metals, wood, PVC, foamed plastics or other polymeric materials, and may or may not have protective coverings.

[0018] FIG. 2. is a plan view showing pattern components of the PoleSox. These components include interior portion 5, which can be made of non-abrasive materials, such as a cloth fabric and exterior portion 6, which is preferably made of water impermeable materials, UV resistant materials that reduce degradation under normal to extreme UV exposure, and can also be decorative in nature with eye friendly indicia printed thereon. The PoleSox has a closed top comprised of circular pieces 7, 8 which can be attached to portions 5 an 6 by means of stitching or other suitable means of attachment.

[0019] FIG. 3. shows interior portion 5 attached to exterior or decorative portion 6 by means of stitching or other suitable means of attachment. Portion 5 is attached to portion 6 so that the outside of the decorative portion is the exterior and a stitched seam (shown in shadow) is on the inside. PoleSox 9 is then shown in its tubular form.

[0020] FIG. 4. shows the tubular body of the PoleSox 9 ready to be attached to circular portions 7 and 8. Portion 7 is similar to portion 5 in fabrication materials and interior abutment against the pole 1. Portion 8 is similar to portion 6 in that it is made of the same UV and water impermeable materials of portion 6. Portions 7 and 8 are attached to an unfinished circular end of body 9 by means of stitching or other suitable means of attachment, so that the seams (shown in shadow) are on the inside and decorative portions are on the outside.

[0021] In operation, the PoleSox is placed over a piling or vertical pole of a boat lift 3 (shown in FIG. 5). This can be performed prior to placement of the boat on the lift or after the boat is in the water. The PoleSox is preferably sized to engage and encapsulate that portion of the piling that is above the surface of the water and most likely to come into contact with the boat hull 4. After placement on the piling, the Pole Sox is firmly secured to the piling by suitable fastening means, such as VELCRO™, snap fasteners, stitching, ties, or the like. The process may be repeated for any number of pilings that are present on the boat lift 3.

[0022] Once fabricated and installed for use, the PoleSox offers a novel means of addressing squeaking or squealing noises associated with engagement of a boat hull with surrounding vertical pilings or other structural components of a boat lift. It will have a long life and be resistant to water and excessive exposure to UV light. Decorative indicia may be included in the form of a boat lover's favorite pet, favorite football team, or just about anything aesthetically pleasing to the eye.

[0023] The above embodiments of the instant invention have been presented so as to not limit the invention to only those embodiments. It is contemplated that obvious variations, modifications, and improvements are within the skill of one familiar to relevant arts.

What is claimed is:

1. In combination: at least one protective cover and a boat lift,

the boat lift comprising at least two vertical pilings and is adapted to receive a boat thereon, wherein the boat lift provides a means for lifting of the boat in and out of a body of water, and the pilings provide a perimeter that limits horizontal movement of the boat when the boat is placed on the boat lift;

the at least one protective cover comprising a flexible material that is water impermeable, ultra-violet light resistant, and having sound reduction properties, the sound reduction properties providing a means for substantially reducing sound levels associated with rubbing of the

boat against uncovered pilings when the boat is on or adjacent the boat lift and in the body of water; and wherein the at least one protective cover is placed over a portion of the respective piling and secured firmly thereto by a fastening means, and the at least one protective cover providing a sound reduction barrier between the respective piling and the boat, which reduces or eliminates the sound levels associated with rubbing of the boat against the uncovered pilings.

2. The combination of claim 1, wherein the at least one protective cover encapsulates the respective piling and is sizable to accommodate pilings of various lengths.

3. The combination of claim 1, wherein the pilings can be made of wood, metal, or polymeric materials.

4. The combination of claim 3, wherein the pilings are made of metal.

5. The combination of claim 3, wherein the pilings are made of polymeric materials.

6. The combination of claim 2, wherein the at least one protective cover has an elongated interior portion that is made of a non-abrasive material that contacts a respective piling and an elongated exterior portion that is ultra-violet light resistant, the two portions being attachable to one another.

7. The combination of claim 6, wherein the at least one protective cover has a tube shape with open and closed ends, the closed end formed of exterior and interior circular portions that are secured together and then attached to the elongated portions to form the tube shape, and the open end having the fastening means thereon so as to encapsulate the respective piling and be firmly secured thereto.

8. The combination of claim 7, wherein the exterior portions have decorative indicia printed thereon.

9. The combination of claim 1, wherein the flexible material has sound dampening or sound absorbing characteristics.

10. A method of using a protective cover on a boat lift, the method comprising the steps of:

providing a boat lift having at least two vertical pilings and receiving a boat thereon, wherein the boat lift provides a means for lifting of the boat in and out of a body of water, and the pilings provide a perimeter that limits horizontal movement of the boat when the boat is placed on the boat lift;

providing at least two protective covers, each comprising a flexible material that is water impermeable, ultra-violet light resistant, and having sound reduction properties, the sound reduction properties providing a means for reducing sound levels associated with rubbing of the boat against uncovered pilings when the boat is on or adjacent the boat lift and in the body of water; and

placing the at least two protective covers over a portion of a respective piling so as to encapsulate the respective pilings and firmly securing the protective covers to the respective pilings by a fastening means, so that the at least two protective covers provide a sound reduction barrier between the respective pilings and the boat, which reduces or eliminates the sound levels associated with rubbing of the boat against the uncovered pilings.

11. The method of claim 10, wherein the at least two protective covers are sizable to accommodate pilings of various lengths.

12. The method of claim 10, wherein the at least two protective covers each have an elongated interior portion that is made of a non-abrasive material that contacts a respective piling and an elongated exterior portion that is ultra-violet light resistant, the two portions being attachable to one another.

13. The method of claim 12, wherein the at least two protective covers each have a tube shape with open and closed ends, the closed end formed of exterior and interior circular portions that are secured together and then attached to the elongated portions to form the tube shape, and the open end having the fastening means thereon so as to encapsulate the respective piling when placed thereon and firmly secured thereto.

14. The method of claim 13, wherein the exterior portions have decorative indicia printed thereon.

15. The method of claim 10, wherein the flexible material has sound dampening or sound absorbing characteristics.

16. At least one protective cover for use with a boat lift comprising:

a flexible material that is water impermeable, ultra-violet light resistant, made of sound dampening or sound absorbing material, and having sound reduction properties, the sound reduction properties providing a means for substantially reducing sound levels associated with rubbing of a boat against uncovered pilings of a boat lift when the boat is on or adjacent the boat lift and in a body of water; and

wherein the at least one protective cover is placeable over a portion of a respective uncovered piling and secured firmly thereto by a fastening means, and the at least one protective cover providing a sound reduction barrier between the respective uncovered piling and the boat that reduces or eliminates the sound levels associated with rubbing of the boat against the uncovered piling.

17. The cover of claim 16, wherein the at least one protective cover is sizable to accommodate pilings of various lengths.

18. The cover of claim 17, wherein the at least one protective cover has an elongated interior portion that is made of a non-abrasive material that is adapted to contact a respective piling and an elongated exterior portion that is ultra-violet light resistant, the two portions being attachable to one another.

19. The cover of claim 18, wherein the at least one protective cover has a tube shape with open and closed ends, the closed end formed of exterior and interior circular portions that are secured together and then attached to the elongated portions to form the tube shape, and the open end having the fastening means thereon for encapsulating the uncovered piling when placed thereon and firmly secured thereto.

20. The cover of claim 19, wherein the exterior portions have decorative indicia printed thereon.

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