

May 17, 1955

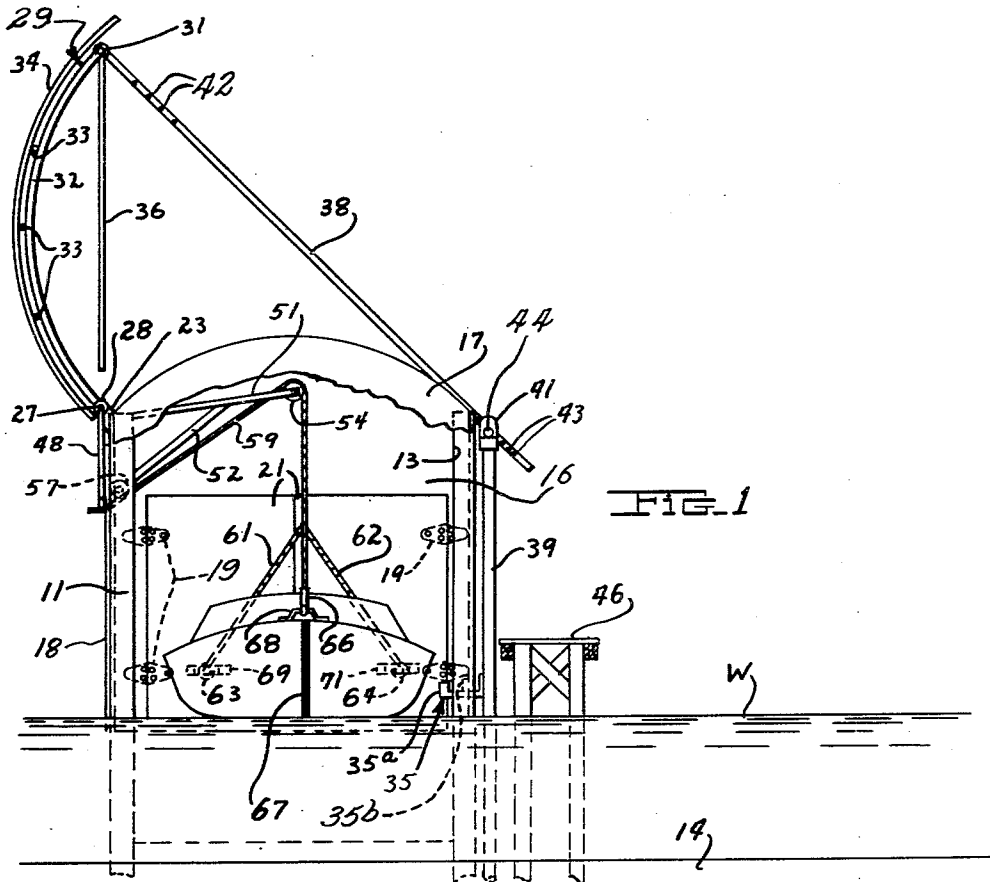
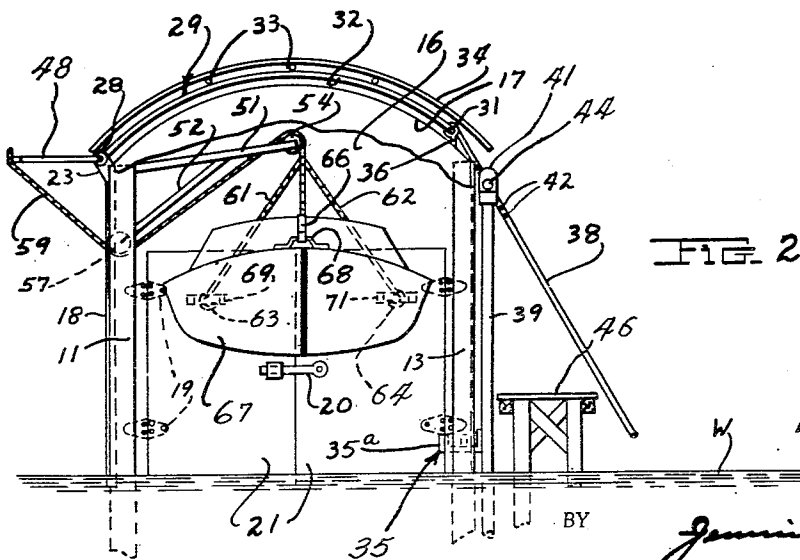
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2,708,346

BOAT DOCK

Filed June 9, 1954

5 Sheets-Sheet 1



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5 Sheets-Sheet 2

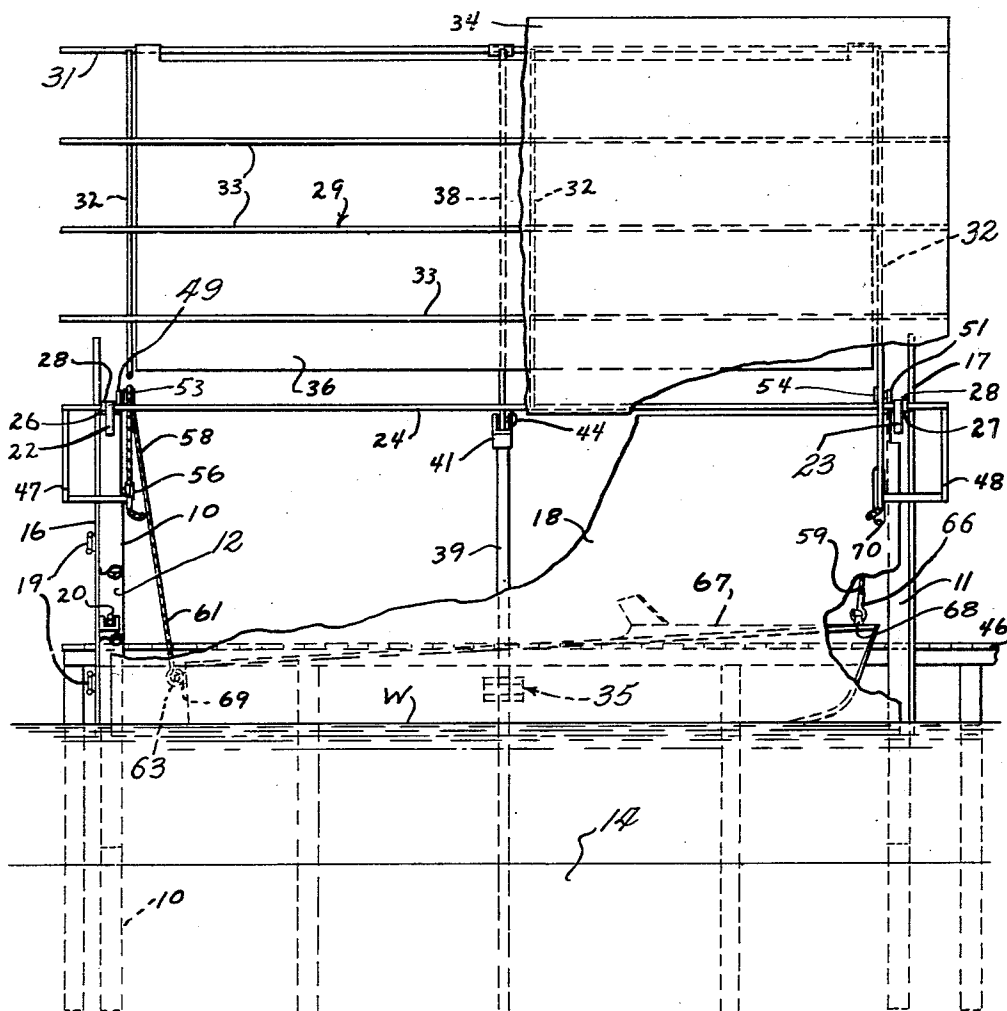


Fig. 3

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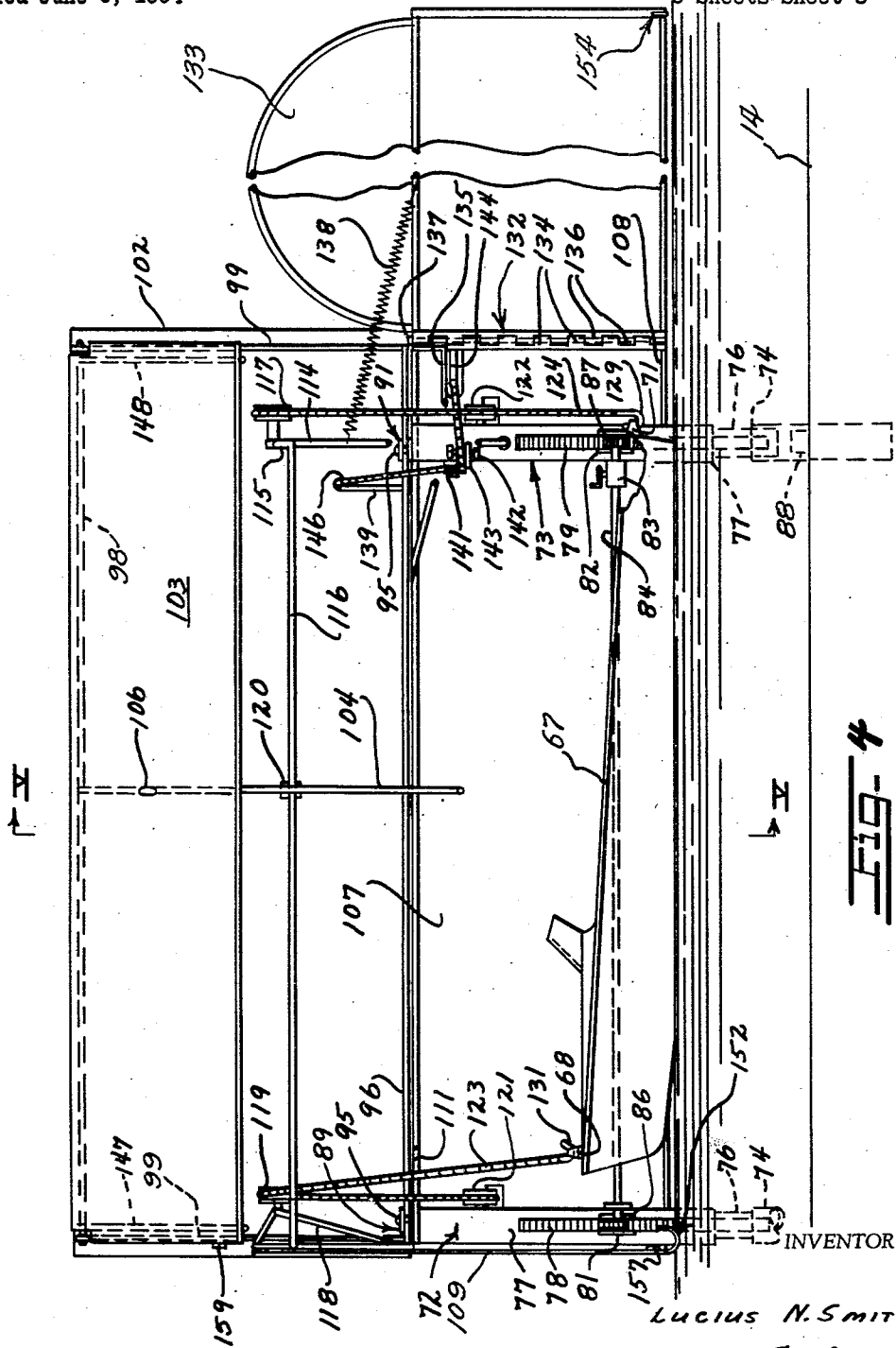
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Fig-5

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BOAT DOCK

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Application June 9, 1954, Serial No. 435,568

21 Claims. (Cl. 61—65)

This invention relates to a boat dock and has for an object the provision of improved means for docking a boat within an enclosure whereby the boat is lifted from the water when not in use.

A more specific object of my invention is to provide a boat dock embodying an enclosure having a roof mounted for pivotal movement at one side thereof together with means operatively connecting the roof to the boat whereby the boat is raised and lowered in response to lowering and raising the roof.

Another object of my invention is to provide a boat dock which shall embody an enclosure having a movable side wall mounted for pivotal movement at its upper end to one side of a roof, the other side of the roof being mounted for pivotal movement on a supporting structure whereby the movable side wall is raised and lowered as the roof is raised and lowered.

Another object of my invention is to provide a boat dock which shall embody a roof pivotally connected to a fixed side wall, a fixed end wall attached to one end of the fixed side wall and a door hinged to the other end of the fixed side wall, together with means operatively connecting the roof to the door whereby the door is opened and closed in response to raising and lowering the roof and remains in fully open position until the roof is lowered, thus preventing oscillation of the door by the wind while in open position.

Another object of my invention is to provide a boat dock of the character designated which shall embody means detachably connecting the lower corners of the movable side wall to the door and end wall when the movable side wall is lowered, together with means for locking the movable side wall in lowered position.

A further object of my invention is to provide a boat dock of the character designated which shall include means for raising and lowering the supporting structure to accommodate the elevation of the dock to variations in the water level.

A further object of my invention is to provide a boat dock of the character designated which shall be adapted for construction in sections capable of being packaged to occupy a relatively small space in storage and shipping, and which can be readily assembled and installed by unskilled labor.

A still further object of my invention is to provide a boat dock of the character designated which shall be simple of construction, economical of manufacture, and one which facilitates greatly the loading, unloading and docking of a boat.

A boat dock illustrating features of my invention is shown in the accompanying drawings forming a part of this application, in which:

Fig. 1 is an end elevational view of the dock, partly broken away and showing the roof in raised position;

Fig. 2 is an end elevational view of the boat dock, partly broken away and showing the roof in lowered or closed position;

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Fig. 3 is a side elevational view, partly broken away, showing the roof in raised position;

Fig. 4 is a side elevational view, partly broken away and in section, showing a modified form of my invention, the roof being shown in raised position;

Fig. 5 is a sectional view taken generally along the line V—V of Fig. 4;

Fig. 6 is a sectional view similar to Fig. 5, showing the roof in lowered position;

Fig. 7 is an enlarged detail view taken generally along the line VII—VII of Fig. 6;

Fig. 8 is an enlarged detail view showing the means connecting the end wall to the lower corner of the movable side wall when the side wall is moved to lowered position; and,

Fig. 9 is a plan view of the apparatus shown in Figs. 4 to 8, the door being shown in closed position with the roof and movable side wall removed for the sake of clarity.

Referring now to the drawings for a better understanding of my invention I show vertical posts members 10, 11, 12, and 13 which are driven into the bed 14 of a body of water indicated at "W." Extending between and secured to the post members 10 and 12 is an end wall 16 and extending between the post members 11 and 13 is an end wall 17. In like manner, the posts members 10 and 11 are connected by a permanent side wall 18. Connected to the end wall 16 and to the post members 10 and 12 by means of hinges 19 are a pair of doors indicated at 21. The doors 21 are held in closed position by means of a suitable latch 20 which is attached to the inner sides thereof, as shown.

Mounted adjacent the upper ends of the post members 10 and 11 are bearing brackets 22 and 23, respectively. Extending through and mounted for rotation in the bearing brackets 22 and 23 is a rod or shaft member 24. Collars 26 and 27 are mounted on the shaft 24 adjacent the outer surface of the bearing brackets 22 and 23 and are held in place by set screws 28, thus limiting axial movement of the shaft relative to the brackets. The shaft 24 forms one side of a roof frame indicated generally at 29. A rod 31 is provided at the other side of the roof frame and is connected to the shaft 24 by laterally extending frame members 32. Also, intermediate longitudinally extending frame members 33 are provided between the shaft 24 and the rod 31. Mounted over the frame 29 is a roof covering 34, which may be formed of any suitable material, such as sheet metal or the like. Preferably, the roof is arch-shaped, as shown in Figs. 1 and 2.

Pivotally connected to the rod 31, by any suitable means is the upper edge of a movable side wall 36. As shown in Figs. 1 and 2 the movable side wall 36 is freely suspended from the rod 31 and remains in a vertical position when the roof is raised and lowered.

Pivotally connected to the rod 31 adjacent the center thereof is the upper end of a bar member 38. Mounted outwardly of the movable wall 36, when the same is in lowered position, is a vertical post 39. Mounted at the upper end of the post 39 is a clevis member 41 in position to receive the lower end of the bar 38. Openings 42 are provided adjacent the upper end of the bar 38 and openings 43 are provided adjacent the lower end thereof for receiving a pin 44 which passes through the clevis member, thereby holding the roof selectively in closed or open position. To prevent lateral movement of the lower end of the side wall 36, when the same is in lowered position, a bracket 35 is mounted on the post 39. The bracket 35 is provided with upstanding members 35a and 35b spaced apart to receive the lower edge of the side wall 36, as shown in Fig. 2. Also mounted alongside

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the movable wall 36, when in lowered position, and outwardly of the post 39 is a pier 46.

Secured to opposite ends of the shaft 24 and projecting outwardly therefrom are brackets 47 and 48. Mounted on the posts 10 and 11 and extending inwardly thereof are bracket members 49 and 51, respectively. Suitable diagonal braces 52 connect the brackets 49 and 51 to the posts 10 and 11, respectively, as shown in Figs. 1 and 2. Mounted adjacent the outer ends of the brackets 49 and 51 are sheaves 53 and 54, respectively. Mounted on the post members 10 and 11 and spaced from the upper ends thereof a distance substantially equal to the length of the brackets 47 and 48 are sheaves 56 and 57, respectively.

Secured to the outer ends of the brackets 47 and 48 are the ends of flexible members, such as ropes or cables 58 and 59, respectively. The cables 58 and 59 pass under the sheaves 56 and 57 and then over the sheaves 53 and 54, respectively. Secured to the free end of the cable 58 beneath the sheave 53 are a pair of end cable members 61 and 62 having hook members 63 and 64 at the ends thereof. Secured to the free end of the cable 59 beneath the sheave 54 is a hook member 66.

The boat indicated at 67 is provided with a ring or bracket 68 adjacent its forward end for receiving the hook member 66. In like manner, rings or brackets 69 and 71 are provided at the rear of the boat for receiving the hook members 63 and 64, respectively.

The cables 58 and 59 are connected to the brackets 47 and 48 in such a manner that the lengths thereof may be adjusted, thus determining the distance the boat will be lifted out of the water. Suitable openings 70 are provided in the side wall 18 through which the cables 58 and 59 pass.

From the foregoing description the operation of my improved dock, shown in Figs. 1 to 3, will be readily understood. When the boat is not in use the roof is lowered, as shown in Fig. 2, with the bar 38 locked to the clevis member 41. To remove the boat from the enclosure, the pin 44 is removed from the clevis member and the rod 38 is moved upwardly until the openings 43 are in register with the pin 44, as shown in Fig. 1. As the roof is raised, the outer ends of the brackets 47 and 48 move downwardly toward the sheaves 56 and 57, thus permitting the cables to move over the sheaves and lower the boat into the water W. The hooks 63, 64 and 66 are removed from their respective brackets and the doors 21 are opened by unlatching the latch 20. The boat may then be removed from the enclosure.

To dock the boat it is moved into the enclosure while the roof is in raised position. While the roof is in raised position the movable wall is positioned over the permanent side wall 18, thereby permitting the boat to be unloaded directly onto the pier 46. The doors 21 are latched in closed position by means of the latch 20. The hooks 63 and 64 are attached to the brackets 69 and 71 at the rear of the boat and the hook 66 is attached to the bracket 68 at the front of the boat. To lower the roof, the clevis pin 44 is removed from one of the openings 43 and the bar 38 is pulled downward. As the roof is lowered, the outer ends of the brackets 47 and 48 move outwardly and upwardly away from the sheaves 56 and 57 thereby raising the boat from the water, as shown in Fig. 2. Also, as the roof is lowered the lower end of the movable side wall 36 moves into engagement with the bracket 35 thus limiting lateral movement of the wall. The clevis pin 44 is then inserted in one of the openings 42 thereby locking the roof in closed position.

Referring now to Figs. 4 to 9 of the drawings, I show a modified form of my invention in which the dock is supported from a single pair of vertical posts 72 and 73. Each post comprises a lower tubular section 74 having a vertical rod 76 projecting from the upper end thereof and secured rigidly thereto. Telescoping over the upper end of the rod 76 is an upper tubular section 77. Secured to

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the lower tubular sections of the posts 72 and 73 are upstanding rack members 78 and 79 respectively. Secured to the upper tubular sections of the posts 72 and 73 in position to engage the rack members 78 and 79 with a sliding fit are guide members 81 and 82, respectively. Mounted on the post 73 adjacent the guide member 82 is a gear box 83 having a horizontal shaft 84 extending therethrough. Mounted adjacent opposite ends of the shaft 84 in position to engage the rack members 78 and 79 are pinions 86 and 87, respectively. Secured to the lower tubular sections 74 of the posts and projecting inwardly thereof in position to engage the bed 14 of the body of water are horizontal brace members 88 which limit downward movement of the posts and also prevent the posts from tilting inwardly.

Mounted at the upper end of the posts 72 and 73 and secured thereto by any suitable means such as by welding, are outwardly extending brackets 89 and 91. The outer ends of the brackets 89 and 91 extend upwardly as at 92 and then inwardly as at 93 to form inwardly opening U-shaped slots 94. Extending through the slots 94 of the brackets 89 and 91 and mounted for rotation therein is a rod or shaft member 96 which forms one side of a roof frame indicated generally at 97. The shaft 96 is held within the slots 94 by means of pins 95 which pass through suitable openings in the brackets 89 and 91. Preferably, the roof frame 97 is arch-shaped, as shown in Figs. 5 and 6. A rod 98 is provided at the side of the roof frame opposite the shaft 96 and is connected to the shaft 96 by arch-shaped members 99 at the ends thereof. Longitudinally extending frame members 101 are also provided intermediate the shaft 96 and the rod 98. The roof frame 97 is covered by any suitable material such as sheet metal 102.

Pivotaly connected to the rod 98 is the upper edge of a movable side wall 103. Secured to the movable side wall 103 adjacent the center thereof and projecting downwardly therefrom is a bar member 104 which is employed to raise and lower the movable wall together with the roof frame 97. As shown in Figs. 5 and 6, the movable side wall 103 extends downwardly alongside the pier 46 and a suitable handle 106 is mounted on the side wall 103 in easy reach of a person standing on the pier. Secured to the undersurface of the brackets 89 and 91 and projecting downwardly therefrom is a stationary side wall 107. Secured to the lower edge of the side wall 107 and connecting the posts 72 and 73 is an elongated plate 108. Attached to one end of the side wall 107 and positioned outwardly of the post 72 is a stationary end wall 109. The end wall 109 is held at substantially a right angle to the side wall 107 by means of a suitable diagonal corner brace 111.

Secured to the shaft 96 adjacent opposite ends thereof and projecting outwardly therefrom are brackets 112 and 113. Mounted on the post 73 and extending upwardly and inwardly thereof is a support bracket 114 having an extension 115 at the free end thereof which extends toward the pier 46, as shown in Figs. 5 and 6. The end wall 109 is connected to the outer end of the extension 115 by means of a longitudinal extending bar 116 which adds strength to the framework and also serves as a hand rail for a person entering or leaving the boat. The bar 116 is also in position to be engaged by a latch member 120 mounted on the bar member 104, which holds the side wall 103 and roof in the raised position. Mounted at the point of juncture of the bracket 114 and the extension 115 is a sheave 117.

Mounted on the end wall 109 and projecting inwardly thereof is a support bracket 118 having a sheave 119 mounted for rotation at the outer end thereof. Mounted on the posts 72 and 73 and spaced from the upper ends thereof a distance substantially equal to the length of the brackets 112 and 113 are sheaves 121 and 122, respectively.

Secured to the outer ends of the brackets 112 and 113

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are the ends of cables 123 and 124, respectively which pass under the sheaves 121 and 122 and then over the sheaves 119 and 117, respectively. Secured to the free end of the cable 124 beneath the sheave 117 are a pair of short cables 126 and 127 having hook members 128 and 129 at the ends thereof for engaging the brackets 69 and 71 at the rear end of the boat. Secured to the free end of the cable 123 beneath the sheave 119 is a hook member 131 for engaging the brackets 68 at the forward end of the boat.

Hinged to the end of the side wall 107 opposite the end wall 109 by means of a hinge connection 132 is a door 133. The hinge connection 132 is in the form of a piano hinge formed by securing a plurality of short sleeve members 134 to the end of the side wall 107 and securing similar short sleeve members 136 to the door 133 in position to fit between the sleeve members 134. A pin 137 passes through the short sleeve members, as shown in Fig. 4. The door 133 is provided with an arch-shaped upper end which moves beneath the arch-shaped roof frame when the roof frame is moved to closed position. Inward movement of the door is limited by a suitable stop member 135 which is secured to the bracket 114 and the side wall 107, as shown in Fig. 9. As shown in Figs. 4 and 9, the sheaves 117 and 122 are positioned so as to support the rear of the boat a substantial distance from the door 133, whereby a motor may be left attached to the rear of the boat.

The door 133 is urged toward closed position by means of a tension spring 138 which is connected at one end to the bracket 114 and at the other end to the door. To open the door 133 as the roof and movable side wall 103 are raised, I mount an arm 139 on the shaft 96 which extends inwardly of the dock as shown in Fig. 6, when the roof frame is moved to closed position. Mounted on the post 73 above the sheave 122 is a sheave 141. Mounted on the inner side of the post 73 adjacent the sheave 141 is a bracket 142 supporting the sheave 143 for rotation about a vertical axis. Secured to the door 133 adjacent its hinge connection 132 and at a substantially the same elevation as the sheave 143 is an outwardly extending arm 144. As shown in Fig. 9, the arm 144 extends outwardly in a direction substantially parallel to the door 133 whereby the arm is moved to a position alongside the stationary wall 107 when the door is moved to open position. Secured to the free end of the arm 139 is a flexible cable 146 which passes under the sheave 141 and around the sheave 143. The other end of the flexible cable 146 is secured to the outer end of the arm 144.

As shown in Figs. 7 and 8, the movable side wall 103 is provided with vertical tubular members 147 and 148 at opposite ends thereof. The lower ends of the tubular members 147 and 148 flare outwardly as at 149 and 151, respectively. Secured to the lower corner of the stationary end wall 109 adjacent the movable wall 103 is a U-shaped bracket 152 having a leg 153 thereof positioned to enter the flared portion 149 of the tubular member 147 when the side wall 103 is lowered. In like manner, secured to the lower corner of the door adjacent the movable side wall 103 is a U-shaped bracket 154 having a leg 156 thereof positioned to enter the flared portion 151 of the tubular member 148 when the movable wall is lowered and thus hold it against movement when in lowered position.

Mounted on the stationary end wall 109 adjacent the bracket 152 is an outwardly extending bracket 157 having a transverse opening 158 therethrough. Mounted on the movable side wall 103, in position to be opposite the bracket 157 when the movable side wall is in lowered position, is a bracket 159 having a transverse opening 161 therethrough for receiving a suitable lock member which also passes through the opening 158 in the bracket 157.

The operation of my boat dock shown in Figs. 4 to 9 is substantially the same as that of the boat dock shown

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in Figs. 1 to 3. The movable side wall 103 is raised by lifting upwardly on the handle 106 until the bar 104 is in reach of the operator. The movable side wall and the roof are then moved to the position shown in Fig. 5 where the latch member 120 engages behind the bar 116 thereby holding the roof and the movable side wall in the raised position. As the roof is raised, the brackets 112 and 113 move downwardly with their cables 123 and 124 to lower the boat 67 onto the water. Also, as the roof is raised, the arm 139 moves upwardly thereby pulling the cable 146 over the sheaves 141 and 143 in a direction to move the outer end of the arm 144 inwardly alongside the side wall 107. As the arm 144 moves inwardly the door 133 moves about its hinge connection to open position.

To close the dock and raise the boat 67 out of the water, the latch member 120 is disengaged from the bar 116 and the rod 104 is pulled downwardly lowering the roof and side wall. As the roof is lowered the brackets 112 and 113 move outwardly and upwardly thereby moving the flexible members 123 and 124 in a direction to lift the boat from the water. Also, as the roof is moved toward closed position, the arm 139 moves downwardly thereby releasing the cable 146 for reverse movement over its sheaves and permitting the spring 138 to close the door against the stop member 135.

The cable 146 is of a length to permit the door to close before the flared portions 149 and 151 of the tubular members 147 and 148 reach the upstanding legs 153 and 156 of the brackets 152 and 154. Accordingly, as the wall 103 moves downwardly, the legs 153 and 156 engage the flared portions 149 and 151, as shown in Figs. 7 and 8, thus holding the wall against shifting. A padlock may then be placed in the brackets 157 and 159, thus locking the movable side wall together with the roof and door in closed position.

From the foregoing it will be apparent that I have devised an improved boat dock. By providing a supporting frame having a roof mounted for pivotal movement at one side thereof together with means operatively connecting the roof to the boat whereby the boat is raised and lowered responsive to lowering and raising the roof, the weight of the boat counterbalances the weight of the roof thus permitting operation of the docking mechanism with a minimum of effort. Also, by providing a movable side wall adjacent the pier which is moved to a position above the enclosure, when the roof is raised, the boat can be loaded or unloaded directly onto the pier while it is within the enclosure. Furthermore, the provision of means for opening and closing the door in response to raising and lowering the roof, together with means for adjusting the elevation of the dock to the water level, assures further the successful operation of my improved boat dock.

While I have shown my invention in but two forms, it will be obvious to those skilled in the art that it is not so limited but is susceptible of various other changes and modifications without departing from the spirit thereof, and I desire, therefore, that only such limitations shall be placed thereupon as are specifically set forth in the appended claims.

What I claim is:

1. In a boat dock, an enclosure for receiving a boat, a roof pivotally connected at one side to one side of said enclosure, an outwardly extending arm rigidly secured to the pivoted side of the roof, a fixedly supported sheave mounted below the level of the pivoted side of the roof, a second fixedly supported sheave mounted inwardly of the pivoted side of the roof and above the level of the first mentioned sheave, a cable connected at one end to the outer end of the arm and passing under the first mentioned sheave and over the second mentioned sheave, boat engaging means connected to the inner end of the cable, and a movable wall pivotally connected at its upper

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edge to the free side of said roof and disposed to maintain a vertical position when the roof is lowered.

2. A boat dock as defined in claim 1 in which a bracket is mounted in position to receive the lower end of the movable wall when the same is in lowered position, thereby limiting lateral movement of said wall.

3. In a boat dock, an enclosure having at least one end wall and a fixed side wall, a roof pivotally connected at one side to said enclosure adjacent the upper edge of said fixed side wall, outwardly extending arms rigidly secured to the pivoted side of the roof, fixedly supported sheaves mounted below the level of the pivoted side of the roof, other fixedly supported sheaves mounted inwardly of and above the level of the first mentioned sheaves, cables connected to the outer ends of said arms and passing under the first mentioned sheaves and over said other sheaves, and boat engaging means connected to the inner ends of said cables.

4. A boat dock as defined in claim 3 in which at least one door is provided at one end of the enclosure for removing a boat therefrom.

5. A boat dock as defined in claim 3 in which the roof is raised and lowered by means of a bar pivotally connected adjacent its upper end to the free side of the roof, and releasable means holds said bar selectively in raised and lowered positions.

6. In a boat dock, an enclosure having an end wall and a fixed side wall, a roof pivotally connected at one side to said enclosure adjacent the upper edge of said fixed side wall, an outwardly extending arm rigidly secured to the pivoted side of the roof, a fixedly supported sheave mounted below the level of the pivoted side of the roof, a second fixedly supported sheave mounted inwardly of the fixed side wall and above the level of the first mentioned sheave, a cable connected at one end to the outer end of said arm and passing under the first mentioned sheave and over the second mentioned sheave, and boat engaging means connected to the inner end of the cable.

7. A boat dock as defined in claim 6 in which a movable side wall is pivotally connected to the side of the roof opposite the fixed side wall.

8. A boat dock as defined in claim 7 in which a pier is mounted alongside the movable wall.

9. In a boat dock, a pier, a first pair of laterally spaced posts adjacent one side of the pier, a second pair of laterally spaced posts adjacent said side of the pier and spaced longitudinally of said first pair of posts relative to said pier, said posts forming the corners for a substantially rectangular enclosure, end walls connecting the first and second pairs of posts, a fixed side wall connecting the outer posts of said first and second pairs relative to said pier, a roof extending between and pivotally connected at one side to said outer posts, an outwardly extending arm rigidly secured to the pivoted side of the roof, a fixedly supported sheave mounted below the level of the pivoted side of the roof, a second fixedly supported sheave mounted inwardly of the pivoted side of the roof and above the level of the first mentioned sheave, a cable connected at one end to the outer end of the arm and passing under the first mentioned sheave and over the second mentioned sheave, boat engaging means connected to the inner end of the cable, and a movable side wall pivotally connected to the side of the roof opposite said pivoted side of the roof.

10. In a boat dock, an enclosure for receiving a boat, a roof pivotally connected at one side to one side of said enclosure, an outwardly extending arm rigidly secured to the pivoted side of the roof, a fixedly supported sheave mounted below the level of the pivoted side of the roof, a second fixedly supported sheave mounted inwardly of the pivoted side of the roof and above the level of the first mentioned sheave, a cable connected at one end to the outer end of the arm and passing under the first mentioned sheave and over the second mentioned sheave, boat en-

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gaging means connected to the inner end of the cable, a movable side wall pivotally connected at its upper edge to the free side of said roof and disposed to maintain a vertical position as the roof is lowered, a bar pivotally connected adjacent its upper end to said free side of the roof, a post mounted alongside said enclosure, a clevis member attached to the upper end of said post in position to receive said bar, there being openings in said bar adjacent the upper and lower ends thereof, and a clevis pin for said clevis member disposed to pass through selected ones of said openings whereby the roof is held in lowered or raised position.

11. In a boat dock, an enclosure for receiving a boat, a roof pivotally connected at one side to one side of said enclosure, means operatively connecting said roof to a boat within said enclosure whereby the boat is raised and lowered in response to lowering and raising the roof, a door hinged at one end of said enclosure, means operatively connecting the roof to said door whereby the door is opened and closed in response to raising and lowering the roof, and means for raising and lowering said roof.

12. A boat dock as set forth in claim 11 in which a stop member is mounted on the enclosure in position to limit inward movement of the door.

13. A boat dock as set forth in claim 11 in which the means operatively connecting the roof to the door comprises an arm secured rigidly to the roof adjacent its pivot point and extending inwardly thereof while the roof is in lowered position, a second arm secured to the door adjacent its pivot point and extending outwardly thereof while the door is in closed position, a fixedly supported sheave mounted below the level of the pivoted side of the roof a flexible member connecting said arms and passing under said sheave, and spring means urging said door toward closed position.

14. In a boat dock a pair of spaced posts, a side wall connecting said posts, a roof mounted for pivotal movement adjacent the upper edge of said side wall, an end wall at one end of said side wall, a door hinged at the other end of said side wall, means operatively connecting said roof to a boat whereby the boat is raised and lowered in response to lowering and raising the roof, means operatively connecting the roof to said door whereby the door is opened and closed in response to raising and lowering the roof, and means for raising and lowering said roof.

15. A boat dock as set forth in claim 14 in which a movable side wall is mounted for pivotal movement at its upper edge to the free side of the roof.

16. A boat dock as set forth in claim 14 in which each post member comprises a fixed lower section, a movable upper section connected to the side wall and adapted for vertical movement relative to the lower section, and adjustable means is provided for moving the upper sections simultaneously relative to the lower sections.

17. In a boat dock, a pair of spaced post members, a side wall connecting said posts, a roof pivotally connected at one side to the upper edge of said side wall, an end wall at one end of said side wall, a door hinged at the other end of said side wall, means operatively connecting said roof to a boat whereby the boat is raised and lowered in response to lowering and raising the roof, means operatively connecting the roof to said door whereby the door is opened and closed in response to raising and lowering the roof, a movable wall pivotally connected to the free side of said roof, latch means connecting the lower corners of said movable wall to the adjacent lower corners of the end wall and door when the movable wall is moved to lowered position, and means for raising and lowering said movable wall.

18. A boat dock as set forth in claim 17, in which the latch means connecting the movable wall to the end wall and door comprises inwardly and upwardly extending brackets mounted at the lower corners of the end wall and door adjacent said movable wall, and downwardly flaring recesses at the lower corners of said movable wall

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in position to receive the upwardly extending portions of said brackets.

19. In a boat dock, an enclosure for receiving a boat, a roof pivotally connected at one side to one side of said enclosure, a door hinged at one end of said enclosure, 5
spring means urging said door toward closed position, an inwardly extending arm secured rigidly to the pivoted side of the roof, a second arm secured to the door adjacent its pivot point and extending outwardly thereof, a sheave fixedly mounted below the level of the pivoted side 10
of the roof, a cable passing under said sheave and connecting said arms, whereby the door is opened and closed in response to raising and lowering the roof, and means for raising and lowering said roof.

20. In a boat dock, supporting means for a roof, a roof 15
pivoted along one side to the supporting means, an outwardly extending arm rigidly secured to the pivoted side of the roof, a fixedly supported sheave mounted below the level of the pivoted side of the roof, a second fixedly supported sheave mounted inwardly of the pivoted side 20
of the roof and above the level of the first mentioned sheave, a cable connected at one end to the outer end of the arm and passing under the first mentioned sheave and over the second mentioned sheave, and boat engaging means connected to the inner end of the cable. 25

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21. In a boat dock, supporting means for a roof over a body of water, a roof pivotally mounted along one side to the supporting means, a boat housed beneath the roof, means to raise the boat and to lower it into the water comprising an outwardly extending arm rigidly secured to the pivoted side of the roof, a fixedly supported sheave mounted below the level of the pivoted side of the roof, a second fixedly supported sheave mounted inwardly of the pivoted side of the roof and above the level of the first mentioned sheave, a cable connected at one end to the outer end of the arm and passing under the first mentioned sheave and over the second mentioned sheave, means connecting the inner end of the cable to the boat whereby upon raising the roof the boat is lowered into and supported by the water thus providing slack in the cable for releasing the same from the boat, and means for raising and lowering the roof.

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