

Aug. 21, 1951

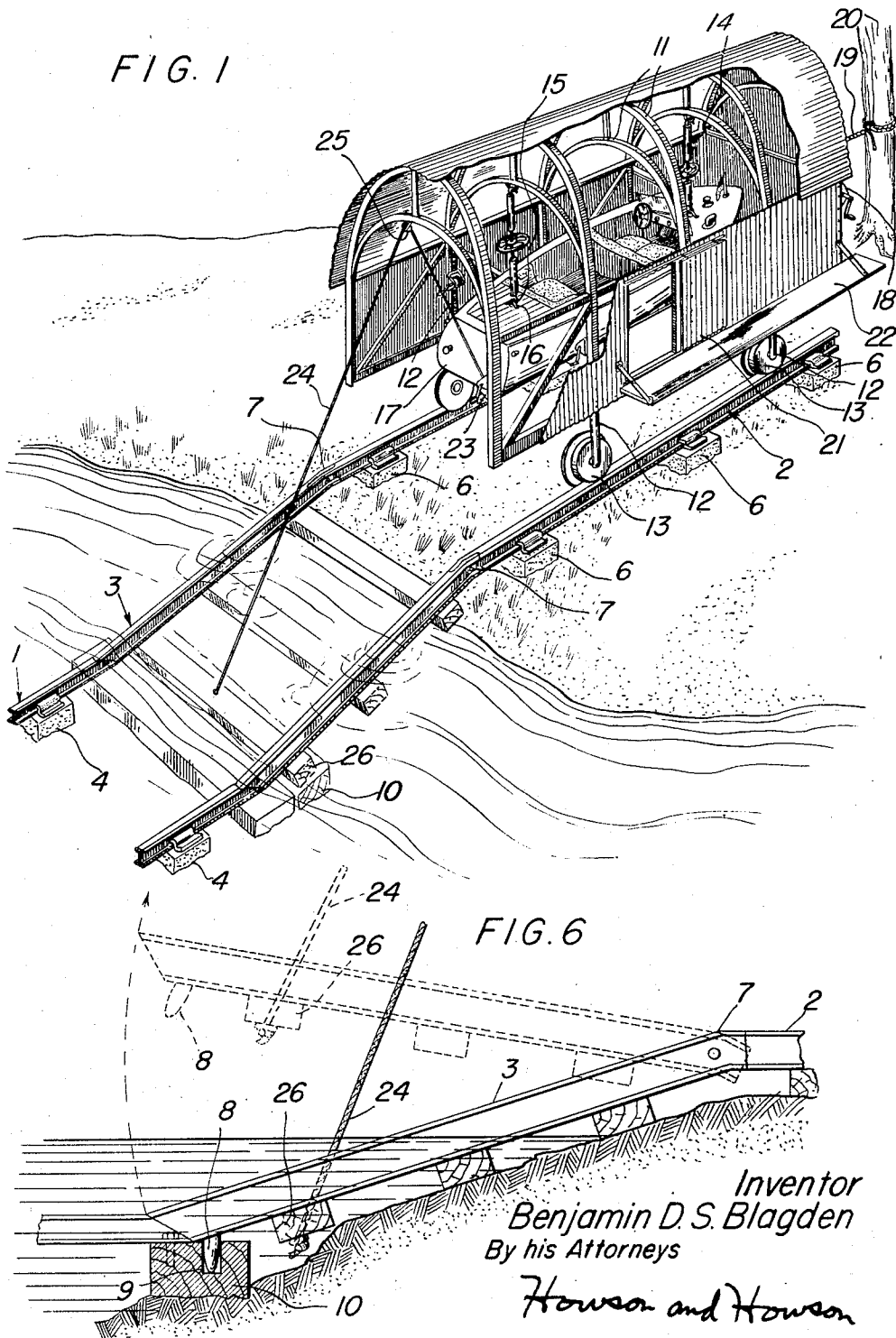
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2,564,951

MOVABLE SHELTER FOR BOATS

Filed Feb. 17, 1948

2 Sheets-Sheet 1



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FIG. 2

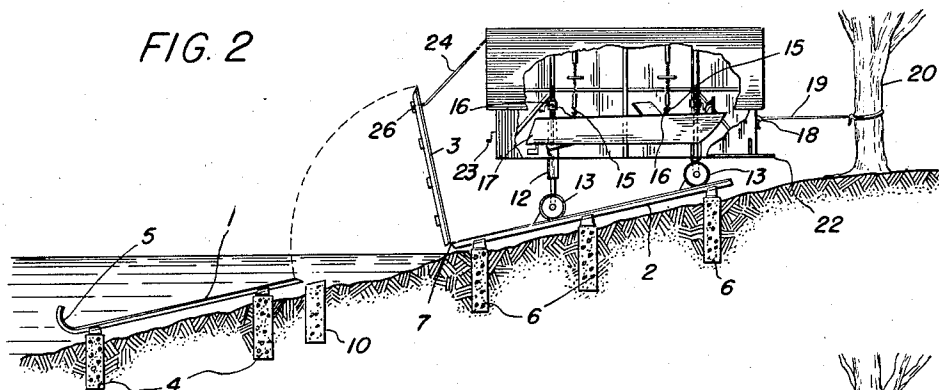


FIG. 3

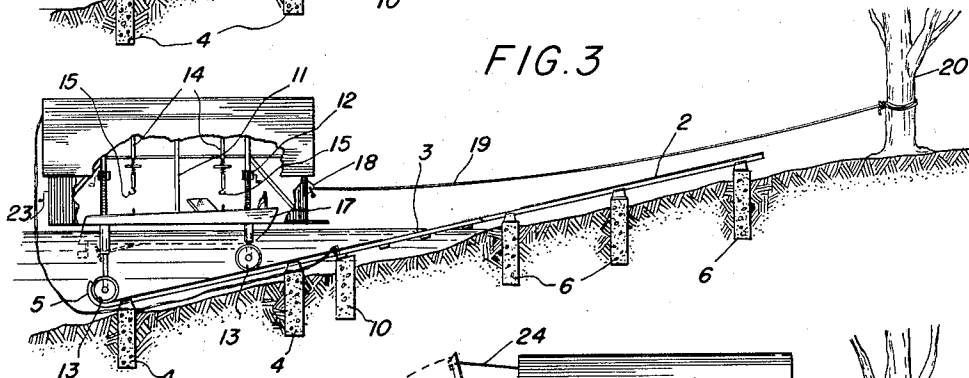


FIG. 4

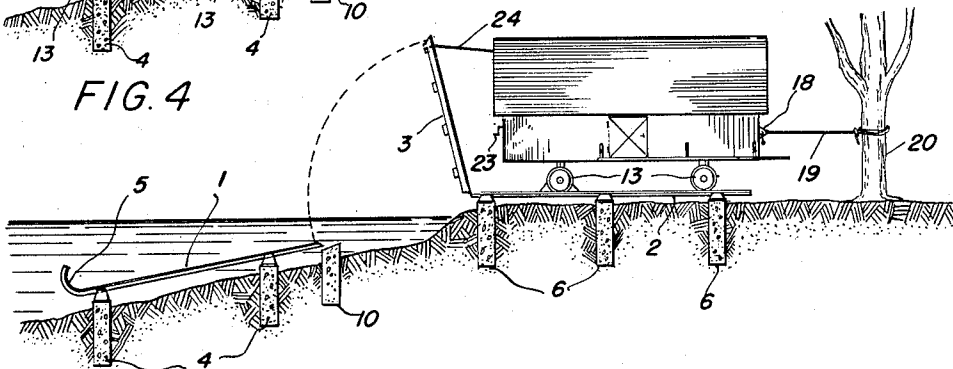
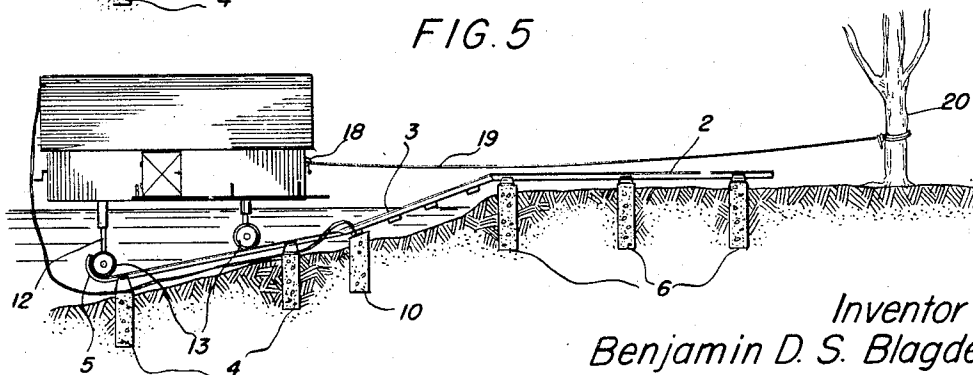


FIG. 5



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MOVABLE SHELTER FOR BOATS

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12 Claims. (Cl. 61—67)

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My invention relates to movable shelters for boats, and more particularly to shelters which are associated with marine railways.

It has long been a problem for small boat owners and amateur yachtsmen to find some suitable and inexpensive means for storing their craft during the winter months and for sheltering them while they are being used. Indeed, the expense and labor associated with providing shelter and storage for small boats are major factors in preventing many persons of average means from owning pleasure craft.

The present invention provides in one simple and inexpensive unit a means whereby a boat may be launched in spring, moored and sheltered during the pleasant months of summer and early fall and safely stored during the winter, free from the crushing, moving and lifting action of ice. This is accomplished through the agency of a novel marine railway upon which is mounted my movable boathouse. The boat is stored suspended within the boathouse during the winter months. When it is desired to launch the craft, my boathouse is run down the novel railway a suitable distance and the boat lowered into the water. My boathouse in this position serves as a convenient docking structure and protects the boat from the deteriorating effects of constant exposure to wind and rain. Further features and advantages will appear in the detailed description which follows.

In the drawings:

Figure 1 is a perspective view showing a portion of my novel marine railway and movable boathouse, partly cut away, as they appear in the preferred embodiment of my invention;

Figure 2 is a view in side elevation on a smaller scale of the preferred embodiment of my movable shelter when mounted on a gradually sloping shore, with the boathouse in the winter or storage position and the tracks raised clear of the ice, the side being partly broken away to show the interior;

Figure 3 is a view in side elevation similar to Fig. 2, showing the boathouse in the summer or docking position and the boat in the water;

Figure 4 is a view in side elevation of a slightly modified embodiment of my movable shelter when mounted on a more level shore, showing the boathouse in storage position, the side being partly broken away;

Figure 5 is a view similar to Fig. 4, showing the boathouse in position for summer use; while

Figure 6 is a side elevation of the water line section of the marine railway of Fig. 1, showing the details of construction of this section.

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The railway, as shown in the drawings, has a railed track with an under-water section 1 and a shore section 2 connected together by a pivoted connecting section 3. The under-water section is permanently fixed to the bottom of the lake, river or bay, at a depth greater than that to which ice usually forms. The tracks are on piles 4, preferably made of concrete. The lower end of the underwater section is preferably curved upwardly to provide a stop 5 for the boathouse.

The railed track of the shore section is also laid on concrete piles 6. At the water end of this section is a hinge 7 to which is pivotally attached the connecting section 3. If desired, this connecting section may have guides 8 at its lower end which fit into sockets 9 of a special under-water base cross-tie 10, as shown in Fig. 6.

The movable boathouse has a frame 11 covered by sheet metal or other suitable material. This forms roof and sides to enclose the house. The frame is supported on vertically extensible supports 12 upon which are located flanged wheels 13 designed to fit the rails. From the top of the frame depend adjustable suspensory members 14 which are means to carry the boat. For this purpose I have shown screw jacks 15 (Fig. 1). These are provided with hooks 16 at their lower ends to engage suitable members such as eyebolts 17 on the boat 17. At the rear or land end of the boathouse is secured a main windlass 18. Upon this is wound a flexible element such as a stout rope, chain or cable 19, one end of which may be secured to a tree 20 or other anchoring means. A door 21 and a platform 22 are preferably constructed on one side of the boathouse to provide access to the windlass 18 and to the boat. Another windlass 23, which I term the track windlass, is attached to one of the vertical water-side frame members, and a flexible element such as a rope, chain or cable 24 is run from it through a pulley 25 at the top of the frame to the last cross-tie 26 of the connecting section of the railway (Figs. 1 and 6).

To best describe the functions of the various members of my invention I will now describe the cycle of operations involved in launching, mooring and storing a boat in my novel boathouse.

Assume that the boathouse has been drawn up on the land and is in the position of Fig. 1, 2 or 4. The first step in launching is to lower the connecting section 3 of the railway by means of the track windlass 23. The lower end of the connecting section on being lowered comes into correct alignment with the under-water section through the agency of the guide 8. Next, the house itself is lowered down along the rails

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by unwinding the main windlass 18. As the boathouse descends into the water, adjustments are made on the extensible supports 12 to maintain the house horizontal. These supports also permit adjustment of the house to the desired distance above the water, and allow for changes in water level. When the rope has been payed out of the main windlass the desired amount or the wheels 13 of the boathouse are in contact with the stops 5, the boat 17 may be lowered into the water by turning the screw jacks 14 until buoyancy relieves the tension on them, and then disconnecting the hooks 15 from the eyebolts 16. The boat is now launched and free to sail.

If desired, the boathouse may be left in a lowered position for the entire season, the extensible supports 12 being adjusted to conform with the depth of water. In this way a convenient mooring is provided. The boat may be left in the water from day to day or easily removed and suspended from the screw jacks 14.

At the end of the season when it is desired to store the craft, it is first raised out of the water on the screw jacks 14. If desired, the full weight of the boat need not be taken up by operation of the screw jacks 14, and instead the raising of the boathouse by the main windlass 18 can be used to lift the boat out of the water. The boathouse is drawn up on the shore by reeling in on the main windlass 18. If desired the boat may be lowered to rest on blocks or a cradle (not shown) for winter storage, thus removing the load from the frame. Finally, to prevent damage by ice to the railway itself, the connecting section 3 of the track is drawn up by winding in the cable 24 on the track windlass 23.

Thus my invention provides in one simple, convenient unit, facilities for storing, mooring, sheltering and launching a small boat. The structure according to my invention lends itself very easily to prefabrication, in that it may be packed in small cases for shipment and easily assembled by the average man, without any special skill or knowledge. It is an important advantage of my invention that, unlike permanent boathouses, it can be made from relatively light materials because no part of the structure is left exposed to the crushing, moving or lifting action of ice. Use of such light materials contributes heavily toward decreasing the cost of construction.

What I claim is:

1. A movable shelter for boats comprising a railed track having a shore section, an under-water section and a connecting section pivotally joined to the shore section and capable of being disconnected from the under-water section and raised clear of the water, in combination with a boathouse adapted to move along said track.

2. A movable shelter for boats as in claim 1 wherein the under-water section comprises an under-water base cross-tie at its land end, said cross-tie having at least one socket in its upper side, and wherein said connecting section comprises at least one projecting guide, said guide being adapted to fit into said socket, whereby the under-water section and the connecting section are properly aligned.

3. A movable shelter for boats as in claim 1 wherein the under-water section is curved upwardly at its lower end to provide a stop for the boathouse.

4. A movable shelter for boats comprising a railed track and a boathouse adapted to be moved along said track, said boathouse having

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extensible supports carrying it on said track whereby the boathouse may be kept horizontal and adjusted to the height of the water, and there being in said boathouse a frame and adjustable suspensory members for suspending a boat from said frame.

5. A movable shelter for boats comprising a railed track and a boathouse, said boathouse having a frame, adjustable suspensory members suspending a boat from said frame, wheels adapted to fit said track and extensible supports connecting said frame and said wheels, whereby the boathouse may be kept horizontal and adjusted to the height of the water.

6. A movable shelter for boats comprising a railed track and a boathouse, said boathouse having a frame, adjustable suspensory members for suspending a boat from said frame, wheels adapted to fit said track, extensible supports connecting said frame and said wheels, a windlass and a flexible element wound on said windlass, said windlass and said flexible element being adapted to draw said boathouse from the water onto the land.

7. A movable shelter for boats comprising a railed track and a boathouse, said boathouse having a frame, adjustable suspensory members for suspending a boat from said frame, wheels adapted to fit said track, extensible supports connecting said frame and said wheels, a main windlass attached to the land side of said frame and a flexible element wound on said windlass and adapted to be attached to anchoring means on the shore.

8. A movable shelter for boats comprising a railed track and a boathouse, said boathouse having a frame, adjustable suspensory members for suspending a boat from said frame, wheels adapted to fit said track, extensible supports connecting said frame and wheels, a windlass attached to said frame and a flexible element wound on said windlass and connected to the railed track.

9. A movable shelter for boats comprising a railed track and boathouse, said boathouse having a frame, adjustable means for suspending a boat from said frame, wheels adapted to fit said track, extensible supports connecting said frame and said wheels, a windlass attached to the land side of said frame, a flexible element wound on said windlass and adapted to be attached to anchoring means on the shore, a second windlass attached to the water side of the frame and a flexible element wound on said second windlass and connected to the railed track.

10. A movable shelter for boats comprising a railed track and a boathouse, said track having a section on land, a section under the water, and connecting the two, a section pivotally joined to the section of land and capable of being disconnected from the section under the water and raised clear of the water; said boathouse having a frame, adjustable means for suspending a boat from said frame, wheels adapted to fit the railed track and connected to said frame by extensible supports, a windlass attached to the land side of said frame, a flexible element wound on said windlass and adapted to be attached to anchoring means on the shore, a second windlass attached to the water side of the frame and a flexible element wound on said second windlass and joined to the connecting section of said track.

11. A movable shelter for boats as in claim 1 wherein the underwater section comprises an under-water base cross-tie at its land end, in com-

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bination with guiding means adapted to align the connecting and underwater sections properly when they are brought together.

12. A movable shelter for boats comprising a track and a boathouse movable on said track, the boathouse having a roof to cover the boat, and extensible supports at each corner of the roof and running on the track adapted to adjust the height of each end of the boathouse independently of the other, whereby the boathouse can be raised or lowered while keeping it level without moving it on the track.

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The following references are of record in the file of this patent:

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