United States Patent

[11] **3,579,996**

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[54] **PORTABLE BOAT RAMP**
7 Claims, 8 Drawing Figs.

[52] **U.S. Cl.** **61/66,** 61/67
[51] **Int. Cl.** **B63c 1/00,** B63c 3/12
[50] **Field of Search** ..... 61/64—67; 248/Inquired 114/44—48

[56] **References Cited**
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ABSTRACT: A portable boat ramp for beaching or launching small boats which eliminates the need to drag such boats across a sandy or rocky beach with resulting damage to the hull. The ramp may be conveniently carried manually and is capable of being quickly adjusted between an extended operative position and a folded position for storage or transportation. Adjustable bolsters are provided for engaging hull sides of different configurations and cooperate with a stabilizing bar which is disposed therebeneath to provide a stable support for a boat while supported on the ramp.

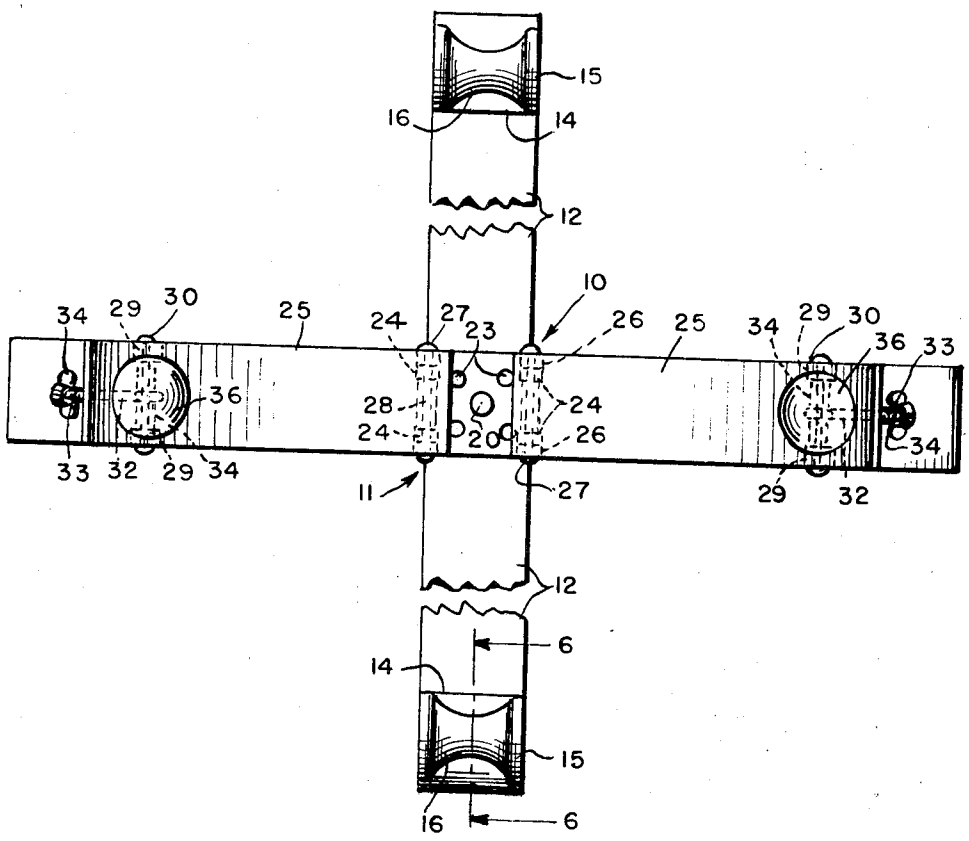
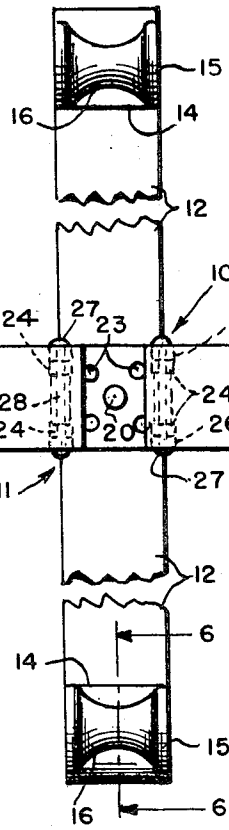


FIG. 1.



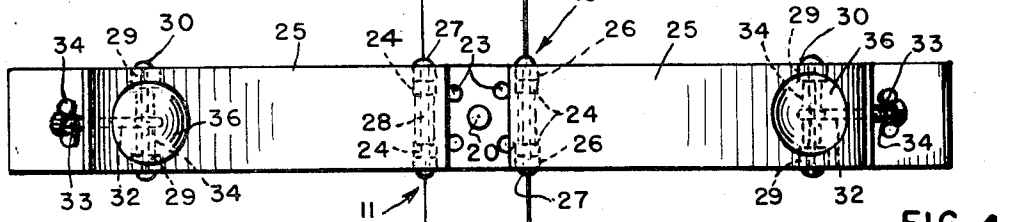


FIG. 4.

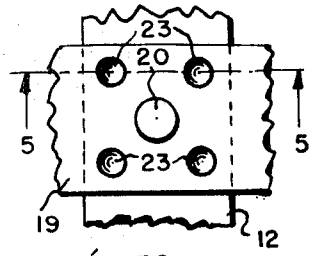
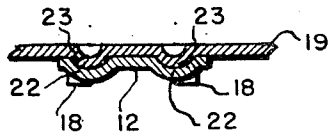


FIG. 5.



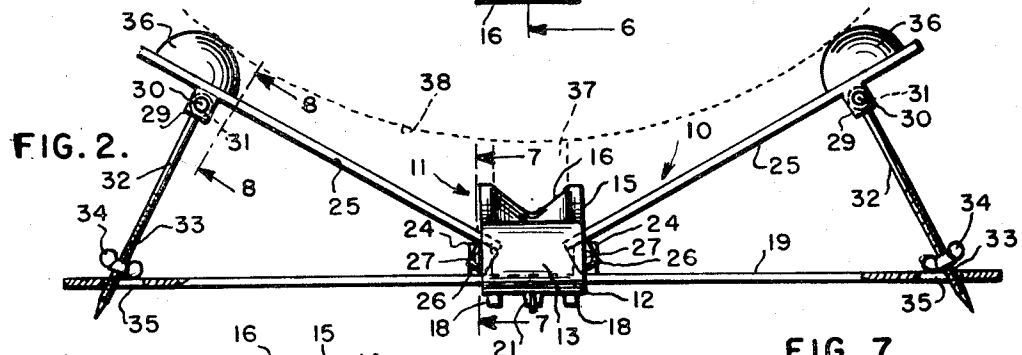


FIG. 2.

FIG. 6.

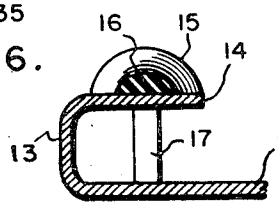
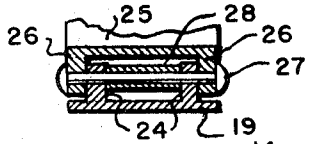


FIG. 7.



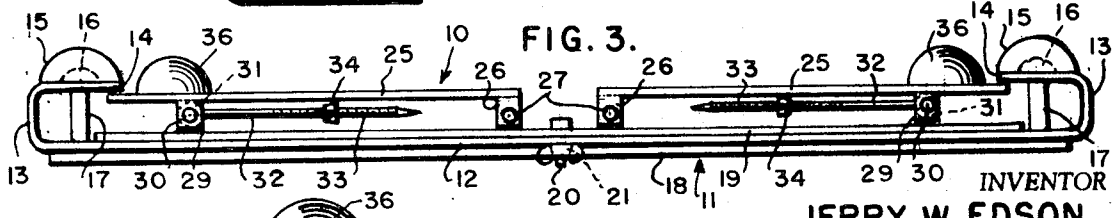
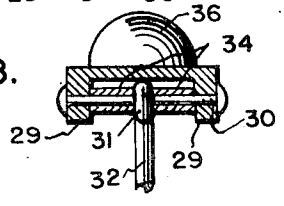


FIG. 3.

FIG. 8.



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PORTABLE BOAT RAMP

BACKGROUND OF THE INVENTION

The present invention constitutes an improvement on my prior U.S. Pat. No. 3,353,363, issued Nov. 21, 1967.

SUMMARY

It is a primary object of the present invention to provide a portable boat ramp for use in beaching and launching small boats on sandy or rocky beaches without the need of dragging the boat across the beach and which provides a stable support for the boat while on the ramp.

Another object of the invention is to provide a portable boat ramp which differs from the boat ramp of my prior U.S. Pat. No. 3,353,363, in that the ramp does not have to be dismantled for storage or transportation, provides a more compact unit when stored, and can be readily secured immovably in an extended position for use.

Another object of the invention is to provide a boat ramp having adjustable bolsters for engaging hull sides of different configurations and which in turn are supported by a stabilizing member to prevent any lateral rocking movement of the boat while supported on the ramp.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a fragmentary top plan view showing the boat ramp in an extended, operative position;

FIG. 2 is an end elevational view thereof, partly in cross section, looking from the lower toward the upper end of FIG. 1;

FIG. 3 is a side elevational view showing the boat ramp folded;

FIG. 4 is a fragmentary top plan view of the central portion of the extended boat ramp, with certain of the parts omitted for clarity;

FIG. 5 is a sectional view, taken substantially along a plane as indicated by the line 5–5 of FIG. 4;

FIG. 6 is an enlarged fragmentary sectional view, taken substantially along a plane as indicated by the line 6–6 of FIG. 1;

FIG. 7 is an enlarged cross-sectional view, taken substantially along a plane as indicated by the line 7–7 of FIG. 2, and

FIG. 8 is an enlarged fragmentary cross-sectional view, taken substantially along the line 8–8 of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring more specifically to the drawing, the portable boat ramp in its entirety and comprising the invention is designated generally **10** and includes a keel rest, designated generally **11**, comprising an elongated rigid bar **12** having corresponding upturned portions **13** adjacent each end thereof, as seen in FIGS. **3** and **6**, and inwardly extending corresponding terminal portions **14** which are disposed above and spaced from the plane of the bar **12**.

A keel engaging member **15** is secured on each terminal **14**. Said members **15** are elongated, disposed crosswise of the bar **12**, are rounded in a direction crosswise thereof and are each provided with an elongated grooved intermediate portion **16**. The keel engaging grooves **16** of the two members **15** are disposed in alignment with one another, as seen in FIG. **1**. An upright post or brace **17** extends between the bar **12** and each terminal **14** and said posts are spaced from the adjacent ends of the terminals, as seen in FIGS. **3** and **6**. The bar **12** is preferably reinforced by a pair of transversely spaced sill members **18** which are secured to its underside and extend substantially from end to end thereof.

A flat rigid stabilizing bar **19** is disposed above the bar **12**, and the shank of a headed bolt **20** extends downwardly through the bars **19** and **12**, is disposed intermediate of the ends of said bars and carries a wingnut **21**, beneath the bar **12**

and between the sills **18**, for securing the stabilizing bar **19** to the keel bar **12**. The bar **12** is pressed downwardly to form four upwardly facing rounded depressions **22** which are equally spaced from one another and from the bolt **20**; and the bar **19** is pressed to provide four rounded bosses **23** on its underside which are sized and located to fit into the depressions **22**, as seen in FIG. **5**. Thus, with the stabilizer bar **19** disposed in its operative position, crosswise of the keel bar **12**, as seen in FIGS. **1** and **2**, the nut **21** can be tightened for retaining the bosses **23** in the depressions **22** for securing the bar **19** immovably to the bar **12**.

The bar **19**, on either side of and adjacent the bolt **20**, is provided with a pair of transversely spaced aligned and upstanding apertured lugs **24**. A pair of rigid bolster bars **25** are disposed above and lengthwise of the ends of the stabilizer bar **19** and having transversely spaced, aligned and apertured lugs **26** extending downwardly from the inner ends thereof. As best seen in FIG. **7**, the pairs of lugs **26** straddle the lugs **24** and pivot pins **27** extend through the aligned lugs **24** and **26** for pivotally mounting the bars **25** on the bar **19** for up and down swinging movement. Each pivot element **27** may carry a spacer sleeve **28** between the lugs **24** engaged thereby.

Each of the bars **25**, near its opposite end, is provided on its underside with a pair of aligned apertured lugs **29** to receive a pin **30** which extends therethrough. The pin **30** extends through an eye **31** on one end of a rod **32** which has a threaded opposite end portion **33**, as seen in FIG. **2**. Spacing sleeves **34** are mounted on the pin **30** between the eye **31** and lugs **29**, as seen in FIG. **8**. The threaded portion **33** of each rod carries a wingnut **35** which is adjustable thereon to form a stop by engagement with the upper surface of the bar **19** when the rod **32** extends through a longitudinally elongated opening **35**, one of which is provided adjacent each end of the bar **19**, for supporting the bolster bars **25** in upwardly inclined operative positions, as seen in FIG. **2**. Substantially hemispherically pads or cushions **36** are secured to the uppersides of the outer ends of the bars **25**. The keel engaging members **15** and the pads **36** may be formed of rubber, plastic or other similar cushioning materials.

With the ramp **10** extended, as seen in FIGS. **1** and **2**, the keel bar **11** is disposed on the beach perpendicular to the water's edge and with one end thereof adjacent the water's edge. An end of the keel **37** of a small boat **38**, as seen in dotted lines in FIG. **2**, is positioned in the groove **16** of the keel engaging member **15**, which located adjacent the water's edge, as an end of the boat is lifted and pulled toward the ramp. The boat is then pushed or pulled up the ramp **10**, toward the other keel engaging member **15**, with the weight of the boat supported on said first mentioned keel engaging member **15**. After the preponderance of the weight of the boat has advanced beyond the keel engaging member **15**, engaged by the keel **37**, the bow or leading end of the boat is manually supported until the boat has been advanced up the ramp to a desired extent. The bow portion of the boat is then lowered so that the keel **37** will engage the other keel engaging member **15**. Transversely aligned portions of the sides of the hull of the boat **38** will then assume positions resting on the pads **36**. If necessary, the wingnuts **34** can be adjusted for raising or lowering the bolsters **25** so that most of the weight of the boat will be supported by said bolsters.

The sills **18** and the bar **12** will sink into the beach surface so that the ends of the stabilizing bar **19** will rest on the beach and the lower ends of the rods **32** will be embedded in the beach surface to retain the ramp immovable. By lifting the bow of the boat to disengage the keel from the upper member **15** and the hull from the pads **36**, the keel can slide readily down the lower member **15** as the boat is pushed outwardly for launching the boat from the ramp **10**.

When the ramp is not in use, the nut **21** can be loosened slightly for turning the stabilizer bar to a position lengthwise of the keel bar, after the rods **32** have been disengaged from the openings **35** and swung inwardly against the undersides of the bars **25**. Stabilizer bar **19** is of a length less than the spacing

between the posts **17** to fit on the bar **12** between said posts, and the bolster bars **25** do not extend to the ends of the bar **19** and fit under the extremities of the terminals **14**, as seen in FIG. **2**. It will be apparent that in this folded position of the ramp, the bosses **23** will engage the depressions **22** so that when the nut **21** is tightened, the ramp will be secured in its folded position for storage or transportation.

Various modifications and changes are contemplated and may be resorted to without departing from the function or scope of the invention.

I claim:

1. A portable boat ramp comprising an elongated rigid keel bar having upwardly offset turned back ends, keel engaging members supported by said bar ends and adapted to be engaged by a boat keel, an elongated rigid stabilizer bar, means connecting an intermediate portion of a stabilizer bar to the upperside of the intermediate portion of a stabilizer bar to the upperside of the intermediate portion of the keel bar for positioning the stabilizer bar in an operative position crosswise of the keel bar or in an inoperative position lengthwise of the keel bar, elongated rigid bolsters disposed on and lengthwise of the ends of said stabilizer bar, means swingably connecting inner ends of the bolsters to the stabilizing bar for vertical swinging movement, and brace members adjustably connecting the bolsters to the stabilizer bar for supporting the bolsters at different angles above the bar ends for engagement with the sides of the boat hull.

2. A portable boat ramp as in claim **1**, said stabilizer bar being of a length to fit under said turned back ends when the stabilizer bar is disposed in an inoperative position longitudinally of the keel bar.

3. A portable boat ramp as in claim **2**, said brace members being swingably connected to the bolsters to assume folded positions between the bolsters and the stabilizer bar when the bolsters are disposed in inoperative positions above and substantially parallel to the stabilizer bar, and said bolsters being of lengths to fit under the turned back ends of the keel bar in the inoperative position of the stabilizer bar.

4. A portable boat ramp as in claim **1**, and means for securing the stabilizer bar immovably to the keel bar in either the operative or inoperative position of the ramp.

5. A portable boat ramp as in claim **4**, said means connecting the stabilizer bar to the keel bar comprising a nut and bolt fastening, and means cooperating with said nut and bolt fastening for retaining the stabilizer bar against turning movement relative to the keel bar in either the operative or inoperative position thereof.

6. A portable boat ramp as in claim **5**, and posts extending between the keel bar and its turned back ends for bracing said turned back ends.

7. A portable boat ramp as in claim **1**, and reinforcing sill members secured to and extending along the underside of the keel bar.