United States Patent

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[54] HULL DESIGN USEFUL WITH HOUSEBOATS

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[21] Appl. No.: **523**

[52] **U.S. Cl.** .....**9/1 R,** 114/63
[51] **Int. Cl.**.....**B63b 35/00**
[58] **Field of Search** .....9/1 T, 1, 6, 2 C, 2 F, 2 S; 114/56, 60, 63, 65, 70, 71, 66.5 F, 26, 27, 77 R; 296/23 R, 23 A, 23 B, 23 C, 23 H, 23 MC

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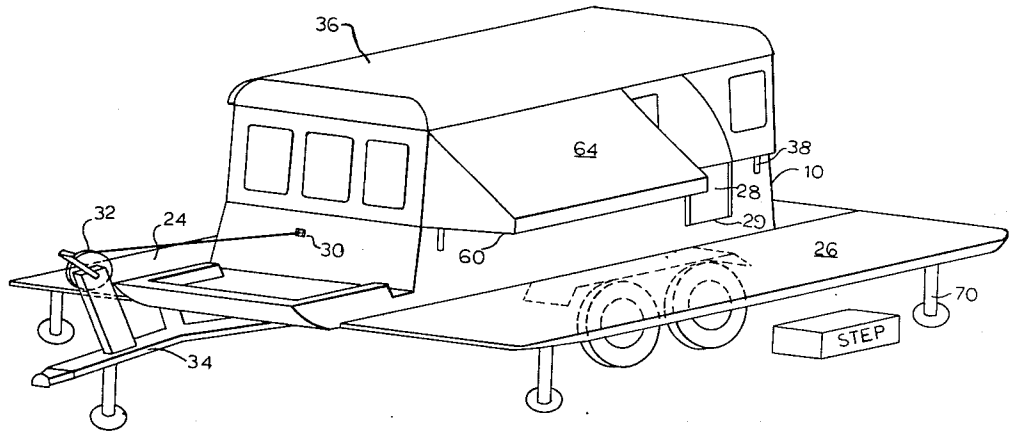
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[57] **ABSTRACT**

A hull design, especially useful for houseboats, has hinged side decks. The hull combines with a trailer to provide a land camping vehicle; and a lowerable roof for such hull, together with the hinged side decks, cooperates to enclose the hull for protection thereof and to shorten the dimensions of the vehicle for purposes of transportation.

7 Claims, 5 Drawing Figures



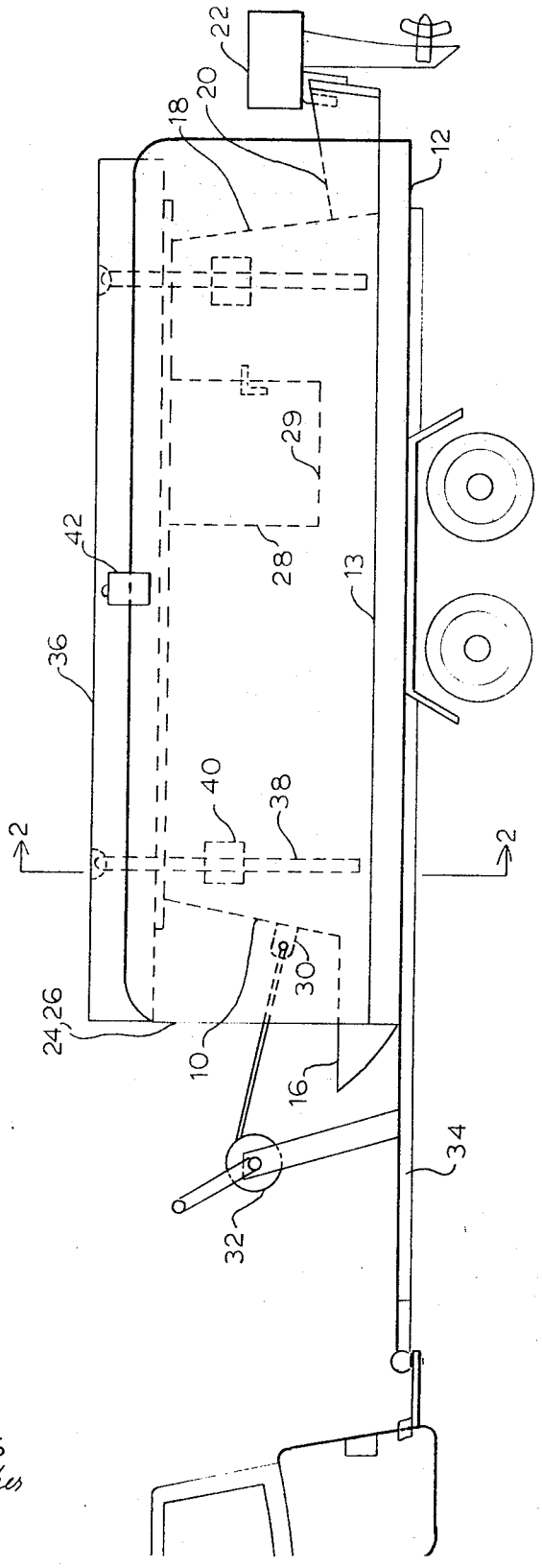


FIG. 1

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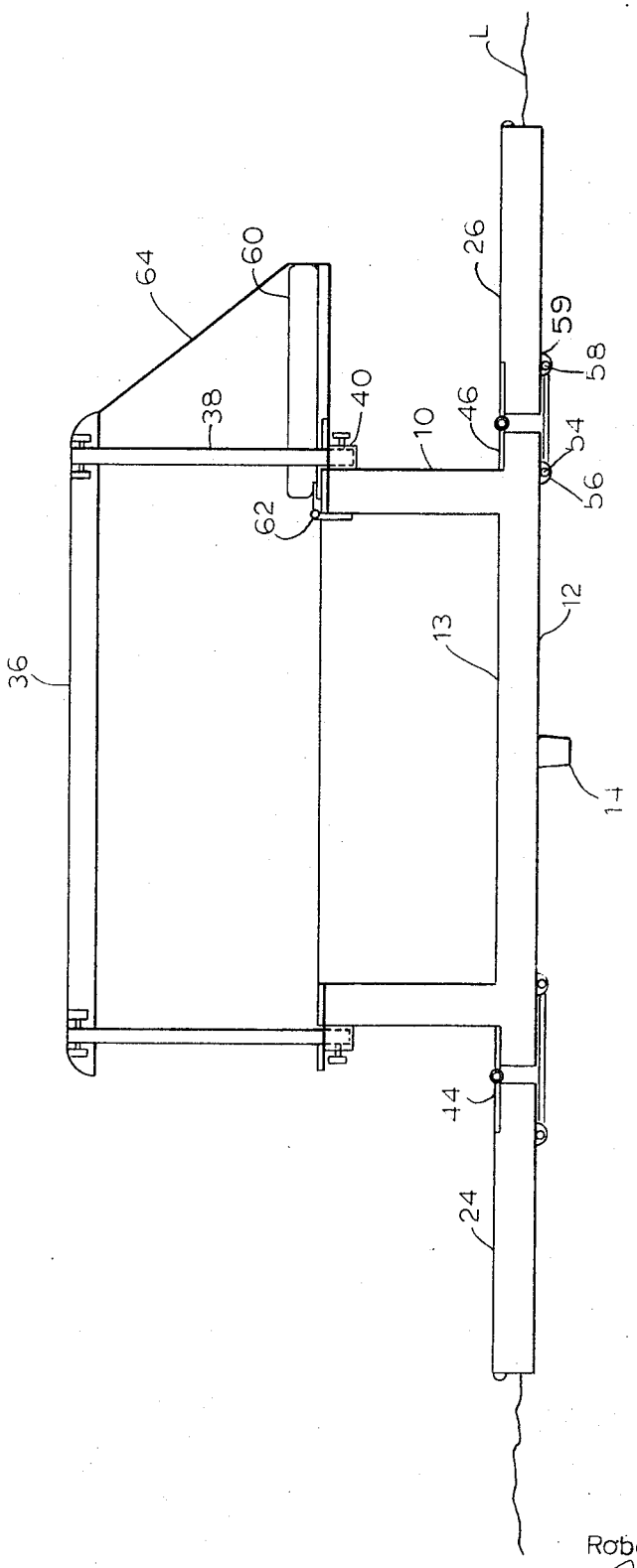


FIG. 2

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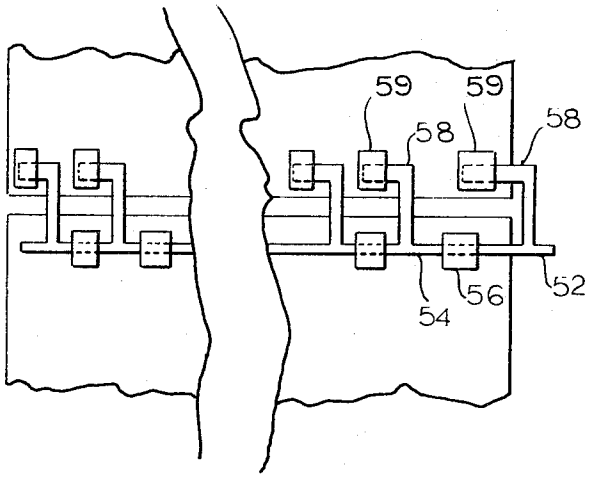


FIG. 4

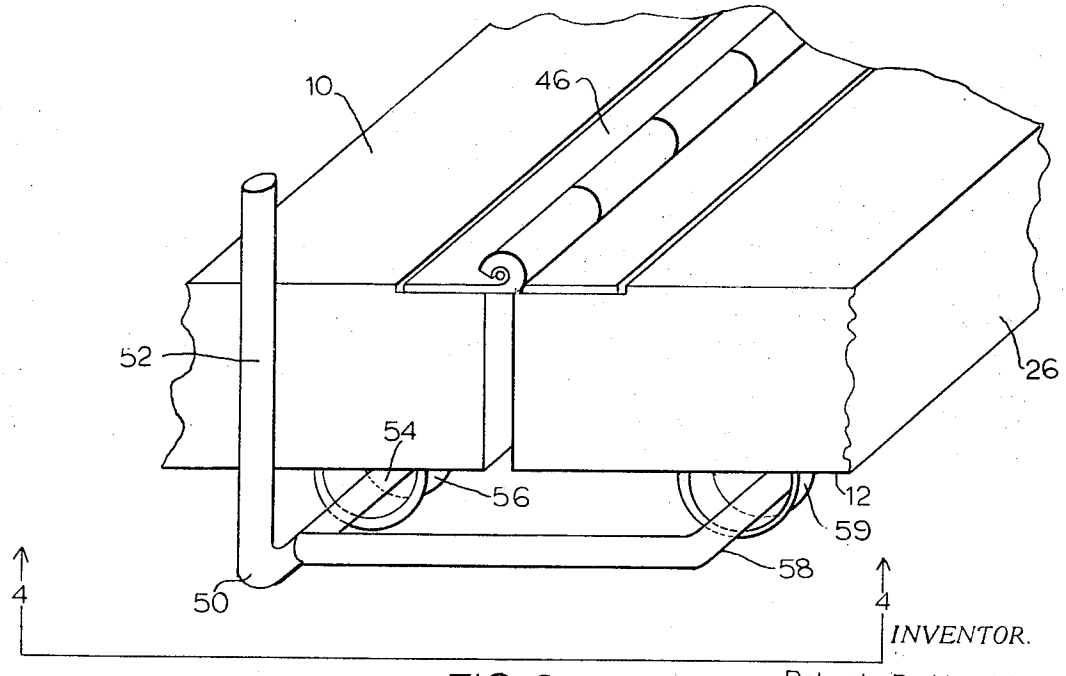


FIG. 3

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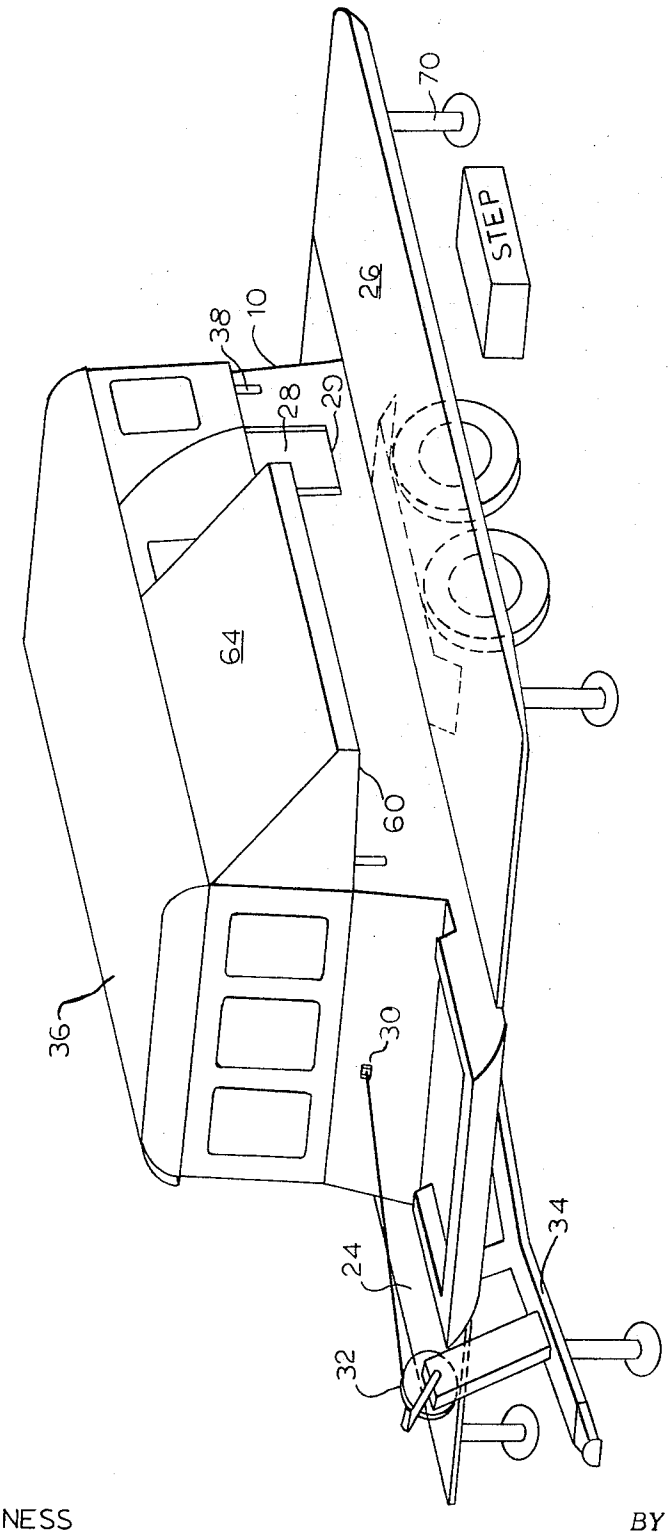


FIG. 5

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HULL DESIGN USEFUL WITH HOUSEBOATS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to boats, and in particular to hull designs for houseboats and the like.

2. Description Relative to the Prior Art

The magazine "Family Houseboating" (published by Trailer Life Publishing Company, 10148 Riverside Drive, North Hollywood, California) has, at various times, illustrated a variety of houseboat forms attempting, in various ways, to give versatility (transportability, collapsability, etc.) to houseboats. See, for example, the Spring, 1969, issue of "-Family Houseboating," page 52. Too frequently, however, the provision of one design feature in a houseboat is the result of the trading off of another design feature from such boat; which means, effectively, that prior art houseboats are — to a large extent — customized for their respective owners.

The best-known patented prior art may be found in U.S. Pat. Nos. 1,371,139; 1,355,937; 1,185,494; and 3,126,558.

SUMMARY OF THE INVENTION

The present invention provides a roomy boat design which is so intrinsically versatile that it may be used, say, for purposes of speeding or towing water skiers; or it may be collapsed and transported like a camping trailer; and it may, in fact, serve as a camping trailer.

Although there are other aspects of the invention, as will be better appreciated below, what is perhaps the most significant of such aspects is the use of a substantially flat bottomed hull having hinged side decks so disposed proximate the hull bottom that (1) when such decks are extended and locked in place at the water level, the boat becomes spacious and stable, and (2) when such decks are locked against the sides of the hull, such decks not only contain and protect the hull, but facilitate the transportation of such hull in the manner of a camping trailer.

OBJECT OF THE INVENTION

To provide an improved form of hull design for use with houseboats and the like.

The invention will be described with reference to the figures, wherein

FIG. 1 is a side elevational view of a boat according to the invention, and illustrates the easy transportability of such boat,

FIG. 2 is a cross-sectional view, in elevation, illustrating the floatability of the boat of FIG. 1, FIG. 2 being taken generally along lines 2—2 of FIG. 1,

FIG. 3 illustrates in perspective a deck locking means which may be employed to accommodate the invention,

FIG. 4 shows additional features of the FIG. 3 locking means, and is taken generally along lines 4—4 of FIG. 3, and

FIG. 5 is a perspective view illustrating the boat of FIG. 1, and particularly points out how such boat may be adapted for purposes of camping, etc.

Reference should be had to FIG. 1–4: The hull **10** has a substantially flat bottom **12**, and a deck **13**. Preferably, the bottom **12** is provided with a keel **14**; and preferably the bow **16** of the hull **10** has some upward taper to prevent plowing in rough water, and while pulling water skiers, etc. The stern **18** of a hull **10** supports a transom **20** to which an outboard motor **22** may be attached.

The hull **10**, proximate its bottom **12**, supports a pair of hinged outside decks **24,26** which when extended (see FIG. 2) away from the hull, and locked in place, act like outriggers, and thus stabilize the floatation of the hull **10**. The decks **24,26**, when extended, are approximately in the same horizontal plane as the deck **13**. Access to the decks **24,26** from within hull is via a door **28**; and when locked in their extended position, the decks **24,26** are adapted to be walked upon. The bottom **29** of the door **28** is not in the plane of the decks **13,24,26** to assure against swamping the interior of the hull **10**.

The hull **10** is provided with hardware **30** to permit winching **32** of the boat upon a car trailer **34**.

A top **36** is secured to the hull **10** by means of poles **38**; and such poles are supported in brackets **40** so that they, and the top **36**, may be lowered, or raised, as indicated respectively in FIGS. **1** and **2**.

The hinged decks **24,26** in their presently preferred form are sufficiently wide so that, when the top **36** is lowered, the decks together with such top may handily package therewithin the hull **10** (see FIG. **1**). A pivotal latch **42** is provided to lock the side decks **24,26** against the sides of the hull **10**.

As best illustrated in FIG. 2–4, hinges **44,46** respectively secure the decks **24,26** to the hull **10** at the bottom **12** (water level L) of the hull **10**. To lock the decks **24,26** in their extended position, respective locking means **50** are provided: Each locking means has a handle **52** for axially sliding a rod **54**. The rod **54** may be axially slid within brackets **56**, thereby to engage, or disengage, respective locks **58** from their staples **59**, i.e., lock a respective deck respectively in its extended position, or permit such deck to be swung upward from locking against the hull side.

The hull **10** is provided with bunks **60** (one shown), and such bunks are secured to the sides of the hull **10**, by means of hinges **62**, and disposed to extend over the said decks **24,26** when such decks are, themselves, locked in their extended positions. Such a design makes maximum use of the available space within the hull **10**. Canvas **64**, or the like, provides protection for the interior of the hull **10**; and also serves to guy the bunks **60**.

Boat versatility, as discussed above, is evidenced by FIGS. **1, 2,** and **5**: FIG. **1** indicates the compact, well-protected, and easily transportable "package" which forms when the boat top **36** is lowered, and the sides **24, 26** are raised; FIG. **2** indicates how little water is drawn by providing a hull with outside decks, such decks being disposed proximate the hull bottom, thereby to allow for speedy, etc., operation; and FIG. **5** indicates that, by leaving the hull **10** upon a boat trailer, and locking the decks **24,26** in their extended positions (with suitable jacks **70** for purposes of propping) and raising the top **36**, the boat serves as a camping trailer.

The invention has been described in detail with particular reference to preferred embodiments thereof, but it will be understood that variations and modifications can be effected within the spirit and scope of the invention.

What is claimed is:

1. A vessel comprising:

a. a substantially flat bottomed hull having an approximately water level deck and an approximately water level bottom, the sides of said hull being in watertight relationship with and upstanding from said hull deck, and being adapted to prevent water from washing upon said hull deck,

b. at least two substantially flat side decks disposed on opposite sides of said hull, the undersides of said side decks being also substantially flat,

c. means for respectively hinging said decks to the exterior of said hull at approximately the said water level, the undersides of said side decks and the bottom of said hull being all adapted to be normally in contact with water when said vessel floats, and

d. means for selectively locking said side decks either against the exterior of said sides of said hull or in extension away from the said hull sides,

said vessel including a top, and means for securing said top over said hull, said means being adapted for selectively raising and lowering the height of said top with respect to said hull; said side decks and top, when respectively locked against the hull sides and lowered, being cooperative with each other to package and protect therewithin said hull.

2. The vessel of claim **1** including at least one bunk, supportable as a cantilever by one side of said hull, and adapted to extend substantially fully over one of said side decks.

3. The vessel of claim 1, in combination with a boat trailer, and means for securing said vessel to said trailer, thereby permit said vessel to be easily transported and used as a camping trailer.

4. A vessel comprising:

a. a substantially flat bottomed hull having an approximately water level deck and an approximately water level bottom, the sides of said hull being in watertight relationship with and upstanding from said hull deck, and being adapted to prevent water from washing upon said hull deck,

b. at least two substantially flat side decks disposed on opposite sides of said hull, the undersides of said side decks being also substantially flat,

c. means for respectively hinging said decks to the exterior of said hull at approximately the said water level, the undersides of said side decks and the bottom of said hull being all adapted to be normally in contact with water when said vessel floats, and

d. means for selectively locking said side decks either against the exterior of said sides of said hull or in extension away from the said hull sides,

said decks of said vessel being so sufficiently wide that, when locked against the sides of said hull, they lie substantially flat against and at least partially cover and protect said hull sides, without materially changing the overall widthwise dimensions of the vessel.

5. The vessel of claim 4 including at least one door in said hull, the bottom of said door being above the level of said side decks when said decks are extended.

6. The vessel of claim 4 including (a) at least one bunk, supportable as a cantilever by one side of said hull, and adapted to extend substantially fully over one of said side decks, and (b) means for guying the outermost part of said bunk to said top.

7. The vessel of claim 6 wherein the bow of said hull is upwardly tapered, and wherein the stern of said hull is adapted to support an outboard motor.

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