March 9, 1948. H. W. RICE 2,437,271

CENTERBOARD INSTALLATION

Filed Jan. 11, 1946

Fig-1-

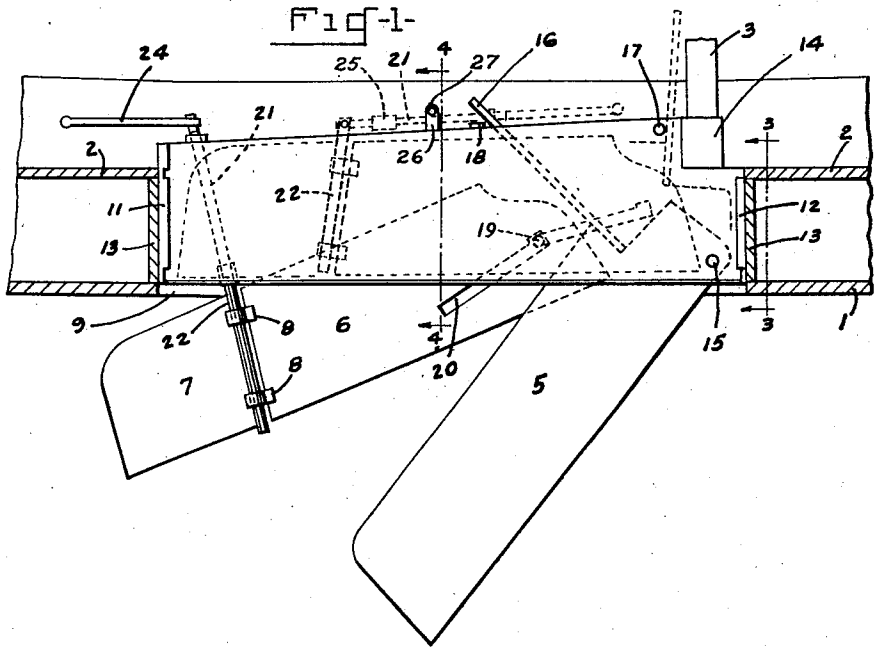


Fig-2-

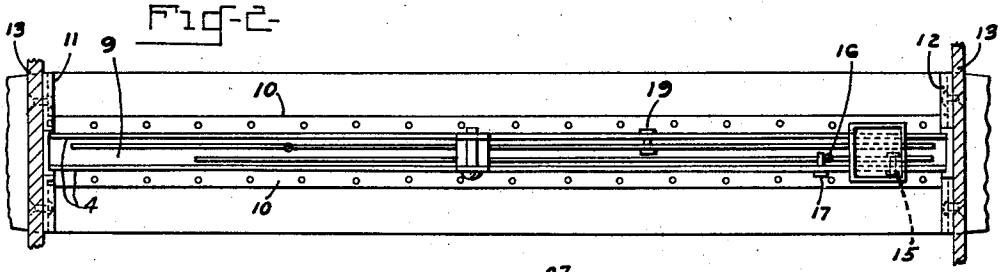


Fig-3-

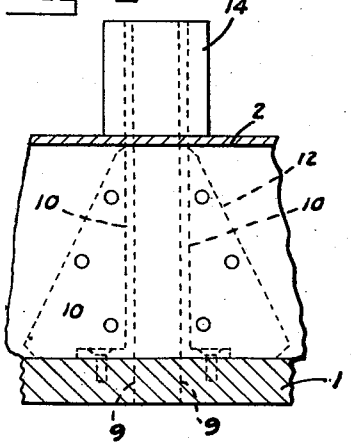


Fig-4-

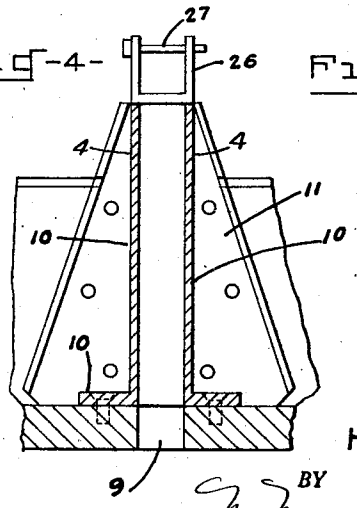
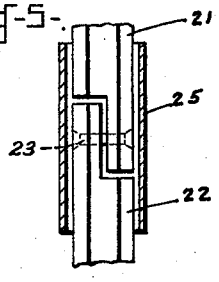


Fig-5-



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Patented Mar. 9, 1948 2,437,271

UNITED STATES PATENT OFFICE

2,437,271

CENTERBOARD INSTALLATION

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Application January 11, 1946, Serial No. 640,585

4 Claims. (Cl. 114—128)

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The present invention relates to centerboard installations and is more particularly concerned with a removable centerboard unit for installation on ordinary sail boats and outboard motor boats.

The primary object of the invention is to provide a combination and centerboard and skeg with rudder, in one unit which can be readily installed in boats and is especially adaptable to flat bottom sail boats and outboard motor boats at small cost and with little structural change.

Another object of the invention is to provide a device of the character referred to which is of simple construction and few parts contained in a conveniently dimensioned centerboard box.

A further object of the invention is to provide a device of the character referred to which is constructed with a mast step as part of the said unit.

With the foregoing and other objects and advantages in view, the invention consists of the novel construction and arrangement of parts hereinafter described and claimed.

In the accompanying drawing illustrating the invention—

Figure 1 is a fragmentary longitudinal section of a boat with the centerboard unit installed.

Figure 2 is a top plan view of the centerboard box and parts installed in operative position.

Figure 3 is a vertical section on line 3—3 of Figure 1.

Figure 4 is a vertical section on line 4—4 of Figure 1.

Figure 5 is a detail view, partly in section of the rudder stock hinge-joint and hexagonal sleeve to hold same in operative position.

Like numerals are used in the description and drawing to designate the same parts of construction.

1 represents the bottom of the hull, 2 the deck and 3 the mast of a flat bottom boat, either sail or outboard motor type.

The centerboard unit is contained in a detachable centerboard box comprising two parallel, perpendicular sides 4 suitably spaced apart to hold the centerboard 5 and the rudder skeg 6 to which the rudder 7 is hinged in conventional manner, as at 8. The top and bottom of the centerboard box are open and the open bottom, which is in form an elongated slot, registers with an elongated slot-like opening 9 suitably positioned in the hull bottom along the boat's medium longitudinal line.

Both vertical sides of the centerboard box are provided at the bottom with lateral flanges 10

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with which to secure the box to the hull, preferably with bolts.

Fore and aft the sides of the centerboard box are provided with vertically disposed flange plates 11 and 12 as laterals. These are secured to deck trusses or beams 13 athwart the boat's beam and approximately amidship. The plates 11 and 12 are removably secured in place by bolts. On the fore part of the centerboard box is an integral mast step 14.

Centerboard 5 is pivotally secured at its lower forward corner on a pivot pin 15 located in the fore part of the centerboard box adjacent the bottom thereof, so as to permit the centerboard to be dropped with a hinge-like movement. The centerboard is operated by a perpendicular handle bar 16, normally held in upright position by means of a removable transverse pin 17 when the centerboard is raised. A bridge bar 18 across the top of the centerboard box, serves to limit the movement of handle 16 aft.

Contiguous and parallel to the centerboard, the rudder skeg 6 is also designed to hinge on a pivot pin 19 projecting through the side of the centerboard box forward. The two pivot pins 15 and 19 are located on opposite sides and the pin 19 is suitably positioned aft of pin 15. The latter is contained in a slot 20 in the skeg which slot is disposed lengthwise thereof and at an acute angle to the lower edge of the skeg. This slot extends for a suitable distance to allow the rudder and skeg to slide aft when lowered and forward when raised, thus producing a hinge connection and also allowing a shorter centerboard box to be employed.

The stock for the rudder, Figure 5, is constructed in two main sections 21 and 22, and connected by a pivot bolt or pin 23 to form a hinge-joint. Adjacent this joint the two sections are hexagonal in cross-section. To the upper end of section 21 the tiller 24 is hinged by means of a pivot pin. Mounted on the rudder stock is a slidable sleeve 25 designed to slip over the hinge joint of the stock and maintain the two sections thereof in coaxial alignment when the aft part of the skeg is lowered to operative position. When the skeg is raised the sleeve is removed from the said joint to permit the section 21 to be dropped and stowed in a keeper 26. This keeper is mounted transversely on the centerboard box, at a suitable point between the ends thereof, and is provided with a removable pin 27 which fastens the stock down when stowed out of the way. Sleeve 25 is formed hexagonal interiorly to correspond with the facets on the rudder stock and such for-

mation of the stock and sleeve not only maintains the alignment of the stock sections but will also take the twist of the rudder.

It will be understood that the foregoing assembly constitutes a unit to be installed in any type of boat for the purpose of converting it into a sailing boat and the elements of the unit may be constructed of any suitable material, such as metal, plastic or wood or a combination of such suitable materials.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In combination, a centerboard box, means for removably securing same in the hull of a boat, a centerboard pivotally secured at its forward end in said box, a rudder skeg contained in said box in parallel relation to said centerboard, a rudder hinged to the after end of said skeg and provided with a sectional rudder stock, and means for pivotally mounting the fore end of the skeg in the box and arranged to allow a fore and aft sliding movement to said skeg.

2. In combination, a centerboard box, means for removably securing same in the hull of a boat, a centerboard pivotally secured at its forward end in said box, a rudder skeg contained in said box in parallel relation to said centerboard, a rudder hinged to the after end of said skeg, a rudder stock provided with a hinge joint and a plurality of plane faces adjacent the joint, a slidably straight sleeve correspondingly shaped interiorly to fit said stock, a keeper mounted on said box and constructed to stow the said

stock when the skeg is raised and the joint thereof released from said sleeve, and means for pivotally mounting said skeg in said box to allow the rear end to be lowered and arranged to allow a fore or aft sliding movement to the skeg while it is being raised or lowered.

3. The combination with a boat provided with an elongated centerboard opening in its hull, of a superimposed centerboard box removably mounted over said opening, a centerboard pivotally secured at its forward end in said box, a rudder skeg contained in said box in parallel relation to said centerboard, a rudder hinged to the after end of said skeg and provided with a sectional rudder stock, and means for pivotally mounting the fore end of the skeg in the box and arranged to allow a fore and aft sliding movement to the skeg.

4. The elements set forth in claim 1 and releasable means for securing the sections of the stock in coaxial alignment.

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