SAILBOAT TILLER APPARATUS

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ABSTRACT

A sailboat rudder apparatus utilizing a tiller tube. A hiking stick is longitudinally and slidably supported within the tiller tube. The connection between the tiller rod and the hiking stick permits the hiking stick to be swiveled relative to the front of the tiller tube.

1 Claim, 11 Drawing Figures
SAILBOAT TILLER APPARATUS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to the art of sailing and more particularly to an improved sailboat rudder apparatus.

2. Description of the Prior Art

Known sailboat rudder apparatus utilizes a tiller rod for operating the rudder. A swiveling hiking stick is connected to the front portion of the tiller to permit actuation of the tiller when the sailor is hiked outwards in the sailboat. The hiking stick presents an obstacle to the operation of the tiller when it is not being utilized.

SUMMARY OF THE INVENTION

It is a major object of the present invention to provide a rudder apparatus for a sailboat which includes a tiller tube attached to the rudder and a hiking stick longitudinally slidably supported within the tiller tube. The hiking stick may be conveniently stowed within the tiller tube in a retracted position when the hiking stick is not in use.

It is another object of the present invention to provide sailboat rudder apparatus of the aforesaid nature wherein the hiking stick is swivelable relative to the front of the tiller tube to permit normal hiking of the sailor.

Yet another object of the present invention is to provide sailboat rudder apparatus of the aforesaid nature which is rugged in construction and is capable of providing a long and useful service life.

Other objects and advantages of the present invention will become apparent from the following detailed description when taken in conjunction with the appended drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view showing a preferred form of sailboat rudder apparatus embodying the present invention;

FIG. 2 is a top plan view of said sailboat rudder apparatus;

FIG. 3 is a broken vertical sectional view taken in enlarged scale along line 3—3 in FIG. 2;

FIG. 4 is a further enlarged sectional view taken along line 4—4 of FIG. 3;

FIG. 5 is a vertical sectional view taken along line 5—5 of FIG. 4;

FIG. 6 is a top plan view similar to FIG. 2, but showing the hiking stick of said sailboat rudder apparatus in an extended position;

FIG. 7 is a vertical sectional view taken in enlarged scale along line 7—7 of FIG. 6;

FIG. 8 is a sectional view similar to FIG. 7, but showing the hiking stick swiveled relative to its position of FIG. 7; and

FIGS. 9, 10 and 11 are top plan views showing the operation of the sailboat rudder apparatus embodying the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings, a preferred sailboat rudder apparatus embodying the present invention includes a generally conventional rudder R provided at its upper portion with a pair of vertically aligned gudgeons 20 and 21. A rigid metallic tiller support 24 is secured to the upper end of rudder R. A tiller tube T is affixed to the upper end of the tiller support 24. A hiking stick S is longitudinally slidably supported within the tiller tube T. Gudgeons 20 and 21 permit the rudder apparatus to be affixed to the transom 25 of a sailboat B in a conventional fashion, as shown in FIGS. 9, 10 and 11.

More particularly, the tiller tube T extends forwardly and upwardly at a comparatively slight angle relative to rudder R. Such tube may be formed of a suitable corrosion resistant metal. As indicated in FIG. 3, the rear end of tiller tube T is rigidly affixed by a horizontal rivet 26 to the barrel 28 of tiller support 24. The front end of tiller tube T is provided with a barrel element 30 that may be held in place by a circumferential dimple 32, as indicated particularly in FIGS. 3 and 7.

Hiking stick S is also of tubular construction and includes a tube 36 that may be formed of a suitable corrosion resistant metal similar to that utilized in the construction of tiller tube T. The front end of hiking stick S is provided with a conventional rubber-like finger grip 40.

Hiking stick S is movable between its retracted position within tiller tube T shown in FIGS. 1—5 and 9 and an extended position shown in FIGS. 6 and 7. Suitable connection means, generally designated 45, are interposed between the tiller tube T and the hiking stick S to permit the hiking stick S to be swiveled in a universal fashion relative to the front end of tiller tube T when the hiking stick S is disposed in its extended position, such swiveling action being depicted in FIGS. 8 and 11.

The aforesaid connection means 45 include a slider 50 longitudinally slidably disposed within tiller tube T and including a collar 52 engageable with the rear end of barrel 30 to retain such plug within tiller tube T when the hiking stick is fully extended. The rear end of hiking stick S includes a plug 56 that abuts the front end of slider 50. The plug 56 of hiking stick S is yieldably retained against the front end of slider 50 by means of a short length of cable 60. Cable 60 is maintained in a stretched condition by a pair of front and rear coil springs 64 and 66 coaxially supported within apertures 68 and 70 formed in slider 50 and plug 56, respectively. The rear end of rear spring 66 engages a stop 72 secured to the rear end of cable 60, while the front end of front spring 64 engages a similar stop 74 affixed to the front end of the cable 60.

In the operation of the aforesaid sailboat rudder apparatus, referring first to FIG. 9, the sailor 75 is shown seated towards the rear portion of the boat, and unless heavy wind conditions are encountered, his body will be close enough to the boat’s centerline that he need not hike. Under these conditions, the hiking stick will be arranged in its retracted position of FIGS. 1, 2 and 3.

Referring now to FIG. 10 and assuming that sailing conditions require the sailor 75 to arrange his body forwardly in the boat’s cockpit, he will pull the hiking stick S forwardly to the position shown in this figure. It is important to note that unless the hiking stick S is moved to its extreme forward position of FIG. 8, it will remain locked against swiveling relative to the tiller rod T. This is true inasmuch as the engagement of the rear end of the hiking stick S with the interior of tiller rod T or stop sleeve 30 will restrain swiveling movement of the hiking stick relative to the tiller tube.
Referring now to FIG. 11, when the wind velocity requires that the sailor 75 hike to the side of the boat B, he will pull the hiking stick S forwardly to its extreme front position within tiller tube T, as shown in FIGS. 6 and 7. In this position the connection means 45 permit the hiking stick S to be swiveled relative to the front end of tiller tube T. Such swiveling can take place because cable 60 will flex to permit the rear end of the hiking stick to swing away from the front end of the slider 50. It should be observed that the tensioning effect of the coil springs 64 and 66 will automatically return hiking stick S to its original position coaxially with tiller tube T when the sailor returns the hiking stick S to such coaxial relationship with the tiller tube.

It is also important to note that when the hiking stick S is disposed in its retracted position of FIGS. 1, 2, 3 and 9, it presents no obstruction to the actuation to the tiller tube T.

Various modifications and changes may be made with respect to the foregoing detailed description without departing from the spirit of the present invention.

I claim:

1. Sailboat rudder apparatus, comprising:

   a rudder;
   a tiller tube attached to said rudder and normally extending forwardly therefrom;
   a hiking stick telescopically arranged relative to said tiller tube;
   a slider longitudinally slidably disposed within said tiller tube;
   a flexible element connecting said slider and the rear end of said hiking stick, said flexible element being coaxial with said slider and said hiking stick and extending rearwardly from said slider and forwardly from the rear end of said hiking stick;
   first spring means interposed between the rear end of said flexible element and said slider; and
   second spring means interposed between the front end of said flexible element and the rear end of said hiking stick whereby said hiking stick is movable longitudinally between a retracted and an extended position relative to said tiller tube, and with said hiking stick being allowed to swivel relative to the front end of said tiller tube when said hiking stick is in its extended position.