Aug. 13, 1968 E. T. SOMMER 3,396,689

SAILBOAT RIGGING

Filed July 25, 1967 3 Sheets-Sheet 1

Fig. 1.

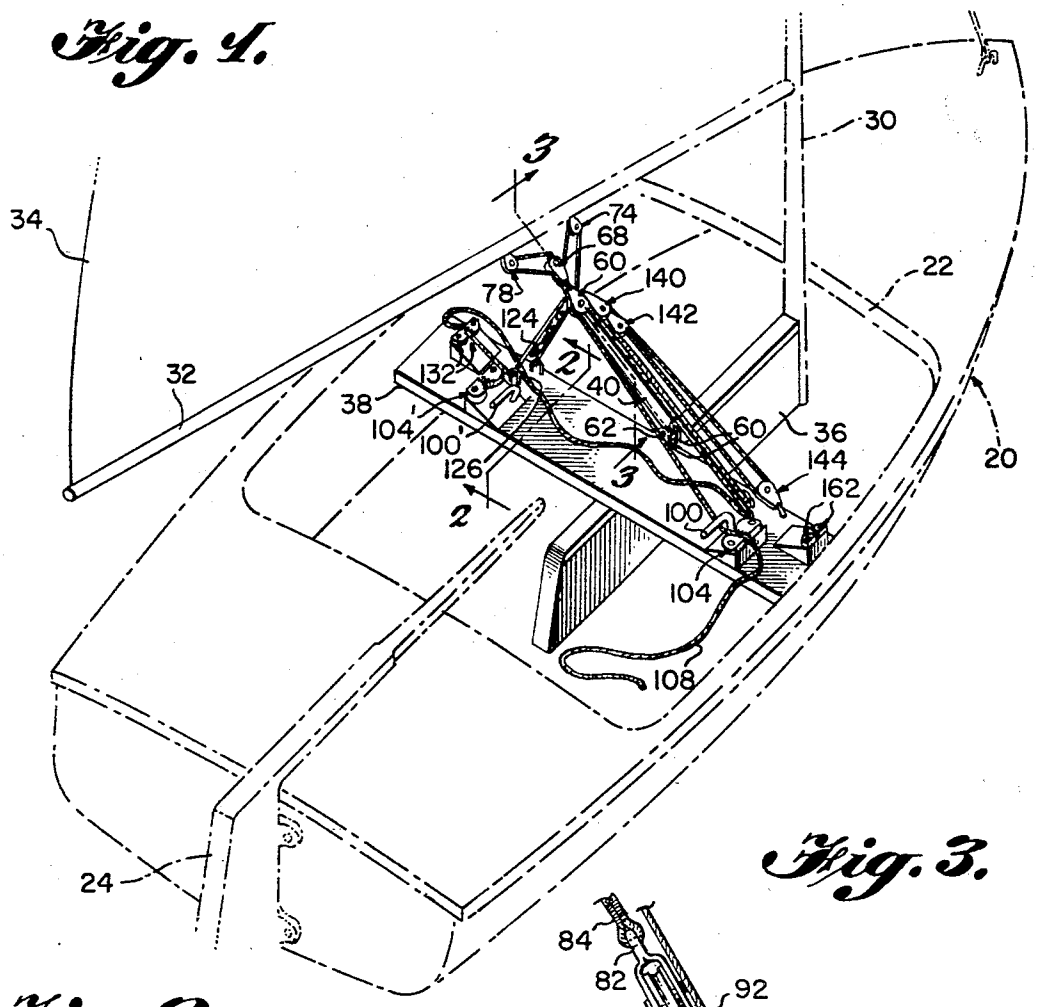


Fig. 3.

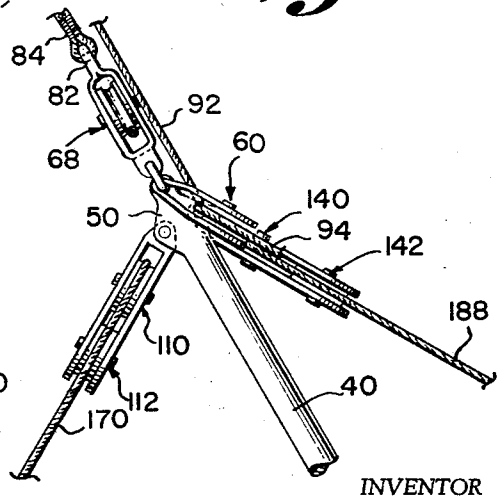
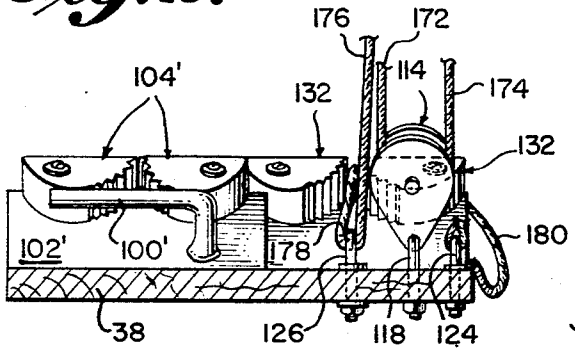


Fig. 2.



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Aug. 13, 1968 E. T. SOMMER 3,396,689

SAILBOAT RIGGING

Filed July 25, 1967 3 Sheets-Sheet 2

Fig. 4.

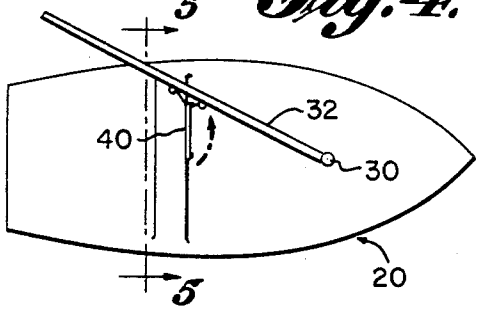


Fig. 6.

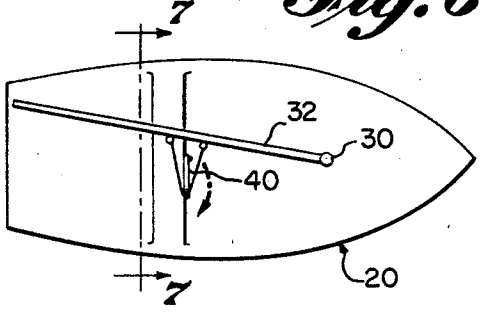


Fig. 5.

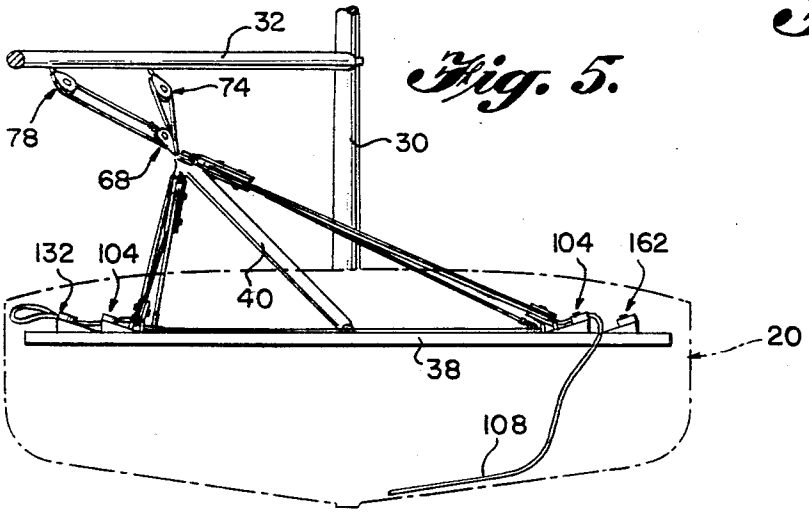


Fig. 8.

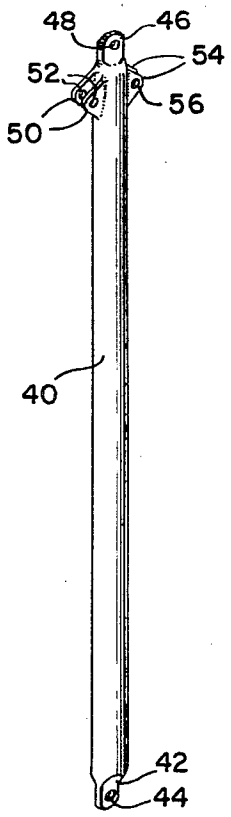
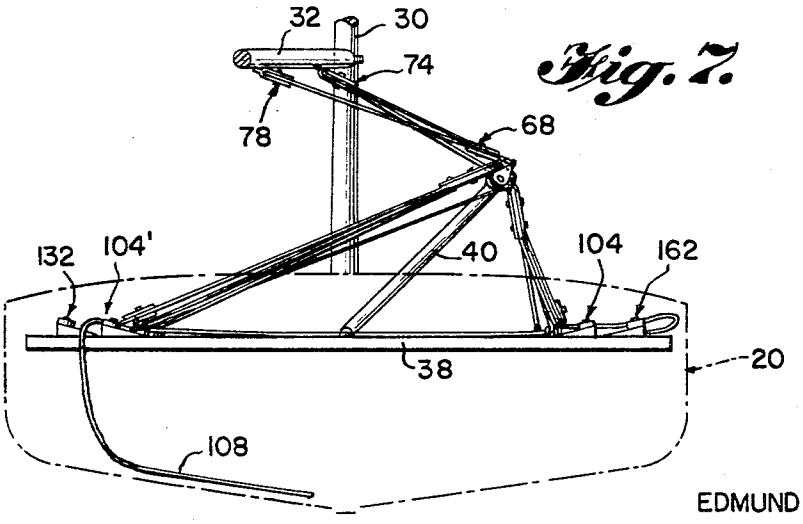


Fig. 7.



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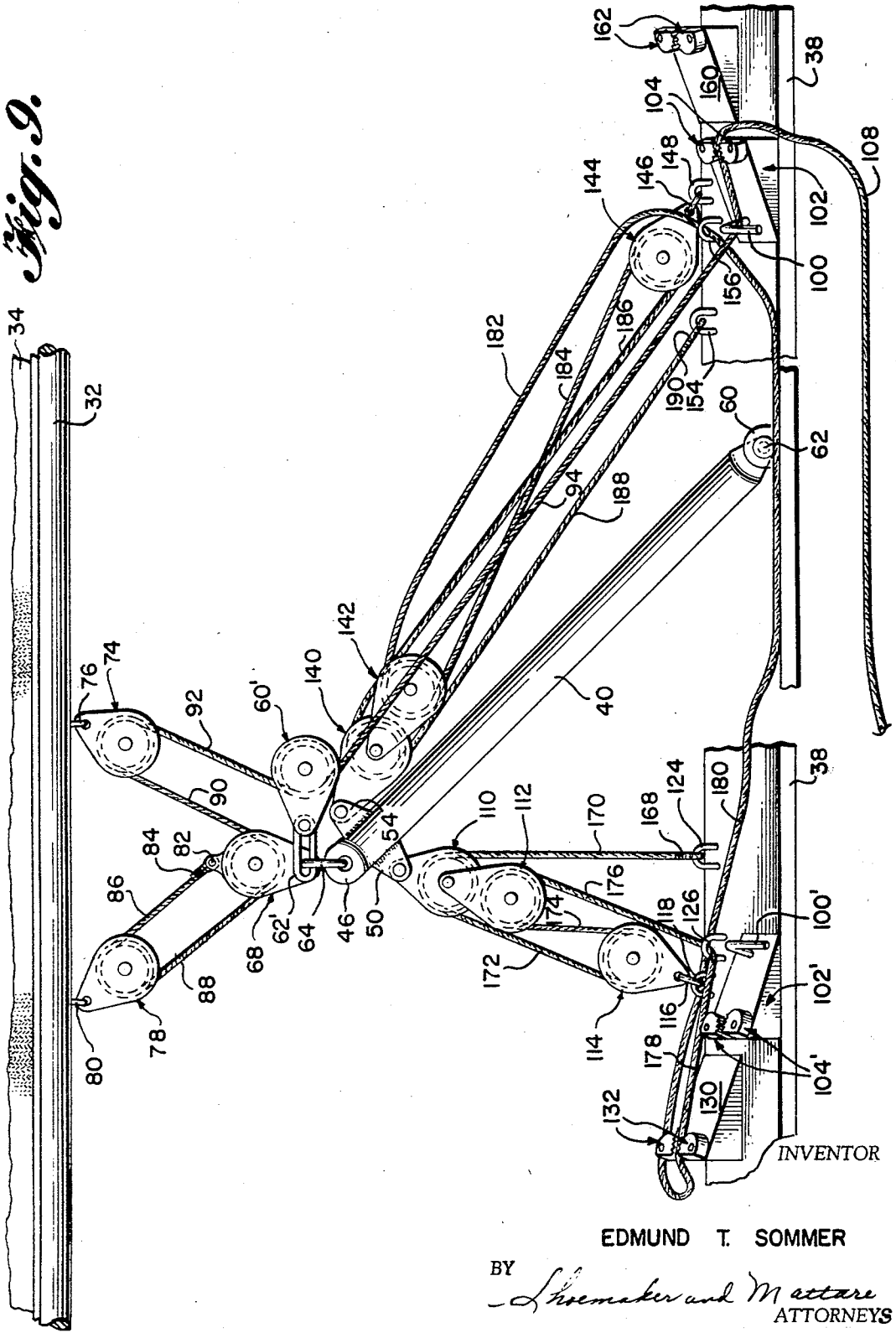
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Aug. 13, 1968 E. T. SOMMER 3,396,689

SAILBOAT RIGGING

Filed July 25, 1967 3 Sheets-Sheet 3

Fig. 9.



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3,396,689

SAILBOAT RIGGING

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Filed July 25, 1967, Ser. No. 655,830
10 Claims. (Cl. 114—98)

ABSTRACT OF THE DISCLOSURE

Rigging is connected with an intermediate portion of the boom of a sailboat for controlling the position thereof. A swingably mounted support post swingably supports block means which receives a first line interconnected with the boom for pulling on the boom for adjusting the position thereof. A further line is reeved over additional block means and interconnected with the support post for adjusting the position of the support post.

Background of the invention

The present invention relates to sailboats, and more particularly to rigging for controlling the position of the boom and the draft of the mainsail. The rigging accordingly controls the swinging movement of the boom, and in prior art arrangements it has proved particularly difficult to control the direction of pull of the boom in a light wind.

A so-called mid boom traveler has been developed wherein a block is slidably positioned on a support member which extends athwarthships, and suitable control lines are positioned by the movable block.

This type of mid boom traveler arrangement has proved unsatisfactory since the block thereof tends to stick in position and often does not provide the desired sliding movement. Additionally, the arrangement is such that the lines extending from the block to the boom apply a pulling force on the boom substantially in a downward direction. This is undesirable since it tends to pull the boom down causing the sail to become inefficient in light winds.

Summary of the invention

In the present invention, a support post is swingably supported at the lower end thereof by the sailboat, and the boom position control means includes block means swingably connected to the upper end of the support post. A line is reeved around this block means and additional block means swingably connected with an intermediate under portion of the boom. Further means is provided for controlling the position of the support post.

With the arrangement of the present invention, the sliding block arrangement as employed in the mid boom traveler type of structure is eliminated thereby eliminating the problems associated therewith.

Additionally and more importantly the arrangement of the present invention enables the pull applied to the boom to be in a direction more to the side of the boom and the sailboat rather than downwardly, and in fact the direction of pull is such that a line drawn along the direction of pull extends completely out of the sailboat.

The arrangement as described hereinabove is especially advantageous in light winds wherein it is desired to have a full sail. Since the force applied to the boom with the present invention is more to the side, the boom is allowed to rise and the arrangement does not have as much of a tendency to pull the boom down. The present invention arrangement also operates efficiently in heavy winds.

An object of the present invention is to provide a new and novel sailboat rigging for controlling the draft of the mainsail which is equally effective in heavy winds as

prior art arrangements and which provides superior results in light winds.

Brief description of the drawings

FIG. 1 is a top perspective view illustrating the sailboat incorporating the rigging of the present invention;

FIG. 2 is a sectional view taken substantially along line 2—2 of FIG. 1 looking in the direction of the arrows;

FIG. 3 is a view taken substantially along line 3—3 of FIG. 1 looking in the direction of the arrows;

FIG. 4 is a top view of a somewhat schematic nature illustrating the sailboat under heavy wind conditions;

FIG. 5 is a sectional view taken substantially along line 5—5 of FIG. 4 looking in the direction of the arrows illustrating the position of the rigging under heavy wind conditions;

FIG. 6 is a view similar to FIG. 4 illustrating the position of the components under light wind conditions;

FIG. 7 is a sectional view taken substantially along line 7—7 of FIG. 6 looking in the direction of the arrows;

FIG. 8 is a perspective view illustrating the support post of the present invention; and

FIG. 9 is a view illustrating the rigging in the heavy wind condition as shown in FIG. 5 with the components arranged in planes so as to clearly illustrate the manner in which the various lines are reeved around the block means, guide means and holding means of the invention.

Description of the preferred embodiment

Referring now to the drawings wherein like reference characters designate corresponding parts throughout the several views, a sailboat is indicated generally by reference numeral **20** in FIG. 1 and includes a cockpit **22**. This sailboat is of relatively conventional construction and includes a rudder **24** mounted at the stern of the boat. A vertically extending mast **30** is provided, and a conventional boom **32** is swingably supported by the mast, a sail **34** being supported by the mast and boom in the usual manner.

A centerbored trunk **36** extends substantially along the centerline of the boat, and a thwart **38** extends between the opposite port and starboard sides of the boat.

Referring now to FIG. 8 of the drawings, a support post **40** may be of elongated tubular construction and includes a reduced ear **42** at the lower end thereof having a hole **44** formed therethrough. A similar reduced ear **46** is formed at the upper end of the support post and has a hole **48** formed therethrough.

A first pair of ears **50** extend laterally from the support post at the upper end thereof and have holes **52** formed therethrough. A similar pair of ears **54** extend from substantially the opposite side of the support post and have holes **56** formed therethrough.

As seen most clearly in FIGS. 1 and 9, a pair of ears **60** are secured to the upper surface of the centerbored trunk **36**, and the lower end of the support post is pivotally interconnected with these ears through the intermediary of a pin **62** extending through aligned holes provided in ears **60** as well as the hole **44** provided in the lower end of the support post. The interconnection is such that the post **40** is free to swing from side to side of the sailboat and also has a certain degree of movement fore and aft thereof since the ears **60** are spaced apart sufficiently to allow such movement.

It will be noted that the elongated support post **40** is swingably mounted substantially along the centerline of the ship aft of the mast and in the illustrated embodiment just forward of the thwart **38**, although its relationship to the thwart may be varied if desired.

Referring now particularly to FIG. 9, the boom position control means includes a first block means **60'** swingably connected by a link **62'** with a link **64** which

in turn is swingably connected with the ear **46** formed at the upper end of the support post **40**. A block means **68** is also swingably interconnected with link **64**.

A further block means **74** is connected through a link **76** with the undersurface of an intermediate portion of boom **32**. A still further block means **78** is swingably connected through the intermediary of a link **80** with the undersurface of the boom.

Block means **68** is provided with a dead-end means **82** which receives one end **84** of boom control line, The boom control line includes a portion **88** which extends upwardly around block means **78**. The portion **88** of the line then extends downwardly around block means **68**. The portion **90** of the line then extends upwardly around block means **74**, and the portion **92** of the line then extends downwardly around block means **60**.

The subsequent portion **94** of the line extends downwardly and under an open cleat or guide means **100** mounted on an inclined support member **102** which in turn is supported by the thwart **38**. The line then extends through a conventional jamb cleat or holding means arrangement **104** and terminates in an end **108** which is adapted to be manually manipulated for applying the desired pull on the boom.

Components similar to those numbered **100**, **102** and **104** are provided at the opposite side of the lower end of the support post and have been given the same reference numerals primed. These latter components are employed when the support post is in a different operative position as hereinafter described.

The support post position control means includes a pair of block means **110** and **112** swingably supported from ears **50** at the upper end of the support post. A further block means **114** is swingably connected by means of a link **116** with a dead eye **118** secured to the thwart **38**.

A dead eye **124** is also secured to the thwart, and a guide means or fairlead **126** is secured to the thwart.

An inclined support **130** is secured to the thwart, and jamb cleat or holding means **132** of conventional construction is mounted on this support.

A further pair of block means **140** and **142** are swingably supported by the ears **54** disposed at the upper end of the support post **40**. Still another block means **144** is swingably connected by link **146** with a dead eye **148** secured to thwart **38**.

A further dead eye **154** is secured to the thwart, and a guide means or fairlead **156** is also secured to the thwart.

A further inclined support means **160** is secured to the thwart, and a conventional jamb cleat or holding means **162** is mounted on this last-mentioned support.

A support post position control line has a first end portion **168** secured to the dead eye **124**. The portion **170** of this line extends up over block means **110**, and portion **172** of the line then extends downwardly around block means **114**. The portion **174** of the line then extends upwardly around block means **112**, and a further portion of the line **176** extends downwardly through the fairlead **126**. The portion **178** of the line then extends through the jamb cleat or holding means **132**, and a slack portion **180** extends across the thwart and through the fairlead **156** at the opposite side of the thwart.

The portion **182** of the line then extends upwardly over block means **142**. The portion **184** of the line then extends downwardly around block means **144**, and the subsequent portion **186** of the line extends upwardly over block means **140**. The portion **188** of the line then extends downwardly and terminates in an end portion **190** secured to the dead eye **154**.

The various components of the rigging of the present invention are illustrated in FIGS. 1, 4, 5 and 9 in the position that they will occupy under heavy wind conditions. It will be noted that under these conditions as seen in the drawings, the boom extends toward the port side

of the sailboat, and that the support post **40** is also inclined toward the port side of the boat. In this position as seen in FIG. 9, the support post position control means to the port side of the sailboat is taut, and the line is held in place by the jamb cleat or holding means **132** so as to hold the support post in its operative position. The boom position control means line is manually grasped at portion **108** thereof and pulled to the extent desired to apply sufficient pull on the boom, whereupon this line is held in place by the jamb cleat or holding means **104**.

Under these heavy wind conditions with the various rigging components in the position shown, a flat sail will be obtained which is the desired result.

FIGURES 6 and 7 illustrate the position of the rigging components under light wind conditions. As seen in these figures, the boom is still inclined toward the port side of the boat, but the support post is inclined toward the starboard side of the boat.

Under light wind conditions, the support post position control means at the starboard side of the boat is taut, and the support post position control means line is held in place by the jamb cleat or holding means **162**. In this position, the boom position control means line is in an opposite relationship to that shown in FIG. 9 so that the line now extends under the guide member **100'** and is held in place by the jamb cleat or holding means **104'**.

It is apparent that with the rigging arrangement as shown in the present invention, a person can readily control the rigging and effectively control the draft of the mainsail. This arrangement has proved to be very effective in light winds wherein it is desired to obtain a full sail, and it is also efficient in operation under heavy wind conditions.

As this invention may be embodied in several forms without departing from the spirit or essential characteristics thereof, the present embodiment is therefore illustrative and not restrictive, and since the scope of the invention is defined by the appended claims, all changes that fall within the metes and bounds of the claims or that form their functional as well as conjointly cooperative equivalents are therefore intended to be embraced by those claims.

What is claimed is:

1. In combination, a sailboat having a mast, a boom swingably supported by said mast, and rigging for controlling the position of said boom, said rigging comprising an elongated support post swingably supported at the lower end thereof by said sailboat, boom position control means comprising block means swingably connected with the upper end portion of said support post, a line reeved over said block means and operatively connected with said boom for controlling the position of the boom, and support post position control means interconnected with side portions of said support post adjacent the upper end thereof for controlling the position of said support post.

2. Apparatus as defined in claim **1** wherein said support post is swingably supported at a point aft of said mast and substantially along the centerline of the sailboat.

3. Apparatus as defined in claim **1** wherein said boom position control means includes guide means disposed at opposite sides of the lower end of said support post for receiving said line, and holding means disposed adjacent to and outboard of each of said guide means for holding said line.

4. Apparatus as defined in claim **1** wherein additional block means is swingably connected to an intermediate under portion of said boom, said line also being reeved over said last-mentioned block means.

5. Apparatus as defined in claim **1** wherein said post position control means includes an additional pair of block means which are swingably connected to substantially opposite side portions of the upper end of said control post, and a further line reeved over said last-mentioned block means for controlling position of said support post.

6. Apparatus as defined in claim 5 including a pair of blocks each of which is swingably connected with a portion of said sailboat, said last-mentioned block means being disposed at opposite sides of the lower end of said support post, said further line also being reeved over said last-mentioned block means.

7. Apparatus as defined in claim 6 including a pair of guide means disposed at opposite sides of the lower end of said support post, said last-mentioned guide means receiving said further line.

8. Apparatus as defined in claim 7 including a pair of holding means each of which is disposed outboard of one of said guide means for receiving said further line and holding it in place.

9. Apparatus as defined in claim 8 including a pair of dead-end means disposed at opposite sides of the lower end of said support post for anchoring the opposite ends of said further line.

10. Apparatus as defined in claim 1 wherein said boom position control means includes a pair of guide means disposed at opposite sides of the lower end of said support post for receiving and guiding said line, and a pair of holding means each of which is disposed outboard of one of said guide means for receiving and holding said line, further block means swingably connected with an intermediate under portion of said boom, said line also

being reeved over said further block means, said post position control means including a pair of additional block means each of which is swingably connected to the upper end of said support post at substantially opposite sides thereof, an additional pair of block means being swingably connected to said sailboat at opposite sides of the lower end of said support post, a further line being reeved around all of said additional block means for controlling the position of said support post, a pair of guide means disposed at opposite sides of the lower end of said support post for receiving and guiding said further line, a pair of dead-end means disposed at opposite sides of the lower end of said support post for anchoring the opposite ends of said further line, and a further pair of holding means, each of said last-mentioned holding means being disposed outboard of one of said last-mentioned guide means for receiving and holding said further line.

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