

No. 830,720.

PATENTED SEPT. 11, 1906.

T. JENSEN.
SAILING BOAT.

APPLICATION FILED DEC. 18, 1905.

2 SHEETS—SHEET 1.

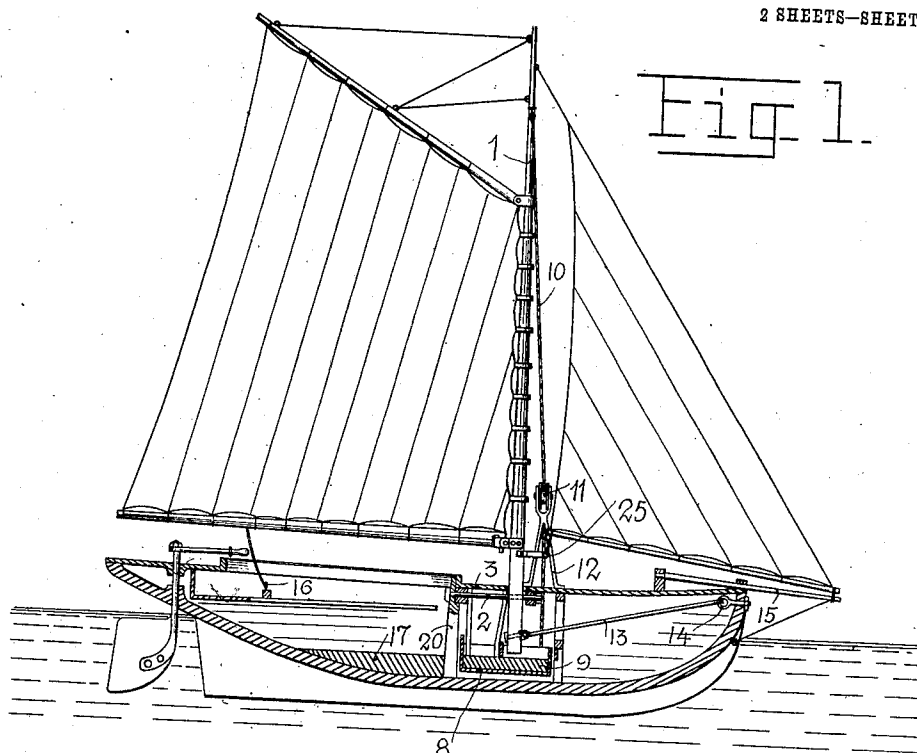


Fig 1.

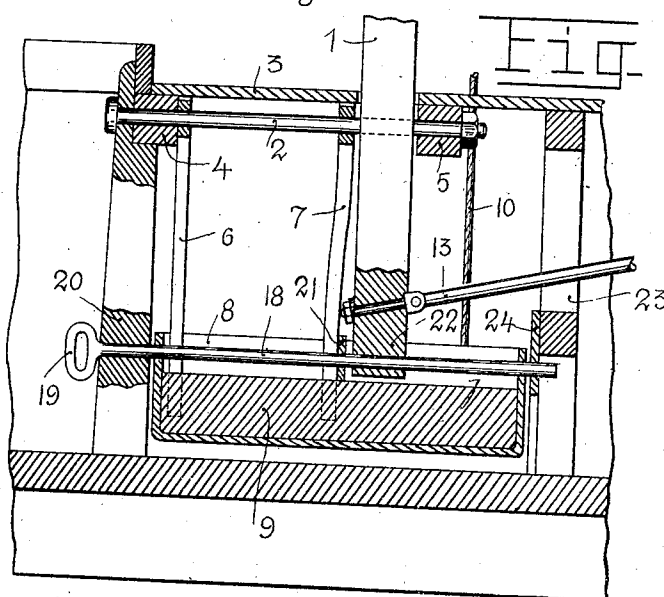


Fig 2.

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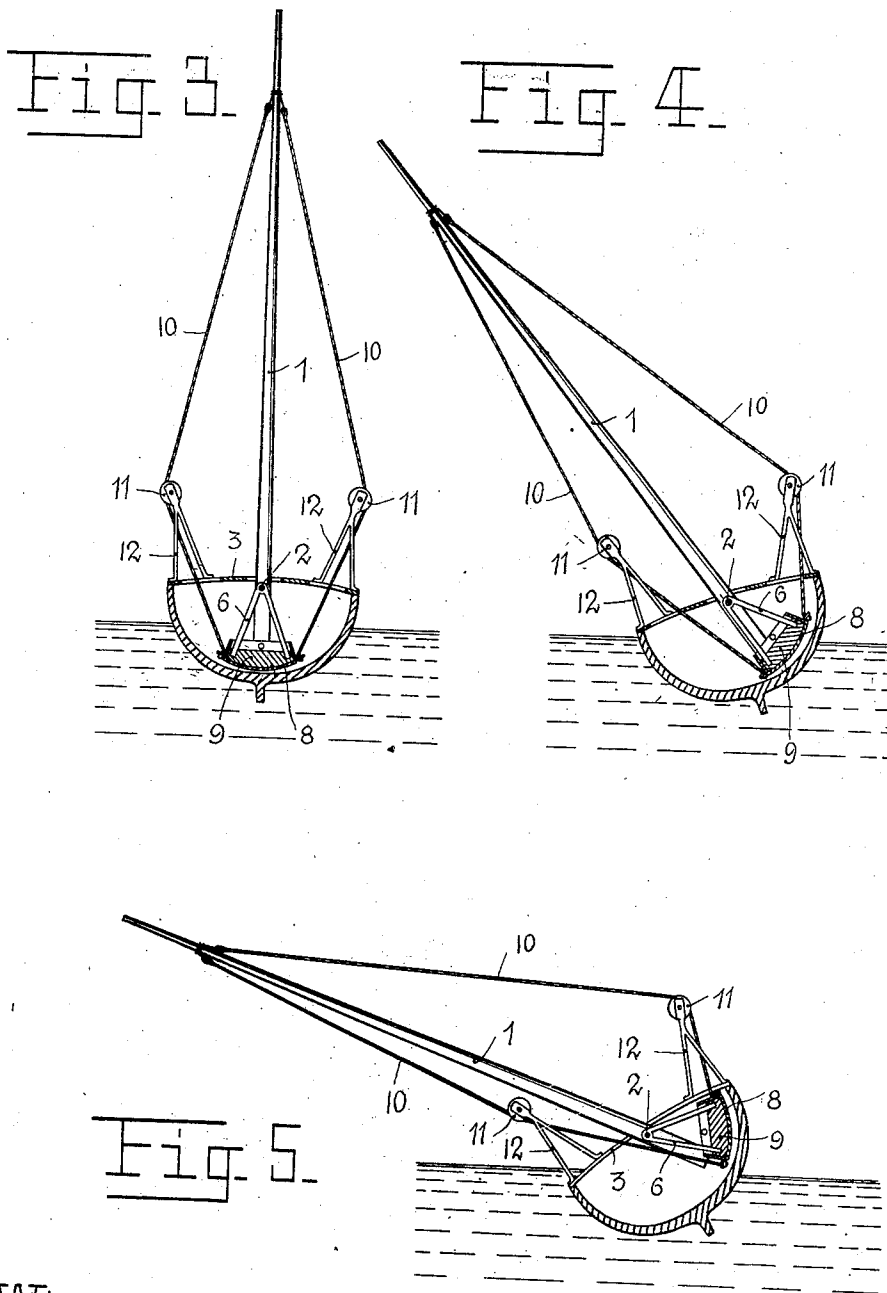
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

THOMAS JENSEN, OF ARENDAL, NORWAY.

SAILING-BOAT.

No. 830,720.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed December 18, 1905. Serial No. 292,356.

To all whom it may concern:

Be it known that I, THOMAS JENSEN, mechanic, a subject of the King of Norway, residing at the city of Arendal, Norway, have invented new and useful Improvements in Sailing-Boats, of which the following is a specification.

This invention relates to improvements in sailing-boats.

Many special arrangements and devices have been tried to prevent the danger of the capsizing of sailing-boats. Most of these arrangements make, in reality, sailing more dangerous, and none of them has excluded every danger.

A device which seems to go in the right track consists in arranging the mast turnably at a fixed point in the boat and providing the lower end of the mast with a heavy weight inside the boat. The present invention is based upon this latter arrangement.

The former devices have proved that the weight of the ballast first will be effective to any essential degree when the mast has attained relatively great inclination; but at the same time the boat has also considerably heeled over, this heeling over being never quite preventable.

The object of this invention is therefore to connect the turnable mast in such a manner with the said weight that the latter even at smaller inclinations of the mast can exert an essential effect without increasing the heeling over of the vessel.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section of a boat, the mast and rig of which is connected with the boat and the weight in the manner described. Fig. 2 is a longitudinal section of the inner part of the boat, drawn to a larger scale. Fig. 3 is a cross-section showing the boat in the vertical position. Fig. 4 is a similar section showing the mast and the boat in an inclined position; and Fig. 5 is a view similar to Fig. 4, but showing the mast and the boat at maximum of inclination.

Instead of suspending the weight inside the boat upon the lower end of the mast the weight is according to this invention connected movably with the mast in such a manner that during inclination of the mast it is automatically lifted up or swung out to a greater height than that which corresponds to the position of the mast, the effect of the weight thus increasing more rapidly than

proportionally to the angle of inclination of the mast.

The mast 1 is pivotally suspended upon a pin 2, which is journaled beneath the deck 3 in two transverse beams or barks 4 and 5. The said pin 2 is surrounded by two parts 6 and 7, carrying a turnable casing which contains the weight 9. The latter is connected with the mast by means of two shrouds or steel ropes 10, which lead from the exterior sides of the casing upward through the deck, and each over a roller 11 to a point near the top of the mast. These rollers are supported by stands 12 in such a position that the weight from the vertical position of the mast, Fig. 3, to any position of inclination, Figs. 4 and 5, is swung out laterally around the pin 2 to a greater angle than the mast. Hereby the influence of the weight on the mast will begin to exert an essential effect even at lesser inclinations. While sailing in strong wind, the mast, weight, and boat will take the position shown in Fig. 4, and during squall or hurricane-like wind the mast will never incline more than shown in Fig. 5, the wind then blowing over the sails. The weight 9 has then arrived at its upmost position. At the same time the heeling over of the boat itself is not greater than during usual sailing in strong wind. It has been proved by practical trials that a boat constructed according to the system above described has not been able to capsize even in hurricane weather or under the influence of the most fierce squalls.

In order to support the mast in the direction of the longitudinal plane of the boat, its lower end is by means of a stretch and pressing bar 13 connected with a bolt 14 in the stem or bow of the boat, this bolt 14 lying nearly in the same line as the axis of the pin 2. In the same line or near the same the foremost end of the bowsprit 15, as well as the fastening-point 16 for the main sail, is arranged, whereby mast and rig during their inclinations in relation to the boat can move approximately independent to the latter. The foresail is held fast by a bow 25, fixed on the mast.

In order to sustain the boat itself and to prevent the heeling over as much as possible, ballast 17 is fixed in the bottom of the boat.

When the boat is in harbor or is sailing in fair wind, it often is desirable to have the mast in fixed connection with the boat. This can be obtained by means of an iron pin 18

with a handle 19. This pin is run through the supporting part 20, the wall of the casing 8, a transverse part 21 of the supporting part 7, the lower end 22 of the mast, the other wall of the casing 8, and through an iron piece 24 on the supporting-stand 23, mast 1 and weight 9, thus being connected with the two fixed parts 20 and 23 of the boat, and the sailing can take place in ordinary manner.

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

1. A sailing-boat provided with a pivoted mast, a weight movable independently of the lower part of the mast and means for connecting said weight to the upper part of the mast.

2. A sailing vessel having a pivoted mast, a weight movable independently of the lower end of the mast and flexible means connecting both sides of the weight with the upper part of the mast, substantially as described.

3. A sailing vessel having a pivoted mast, a weight movable independently of the lower end of the mast, rollers located on the deck at each side thereof and in line with the mast and flexible means connecting each side of the weight with the upper part of the mast, said flexible means passing over the rollers.

4. A sailing vessel having a pivoted mast, a weight movable independently of the lower end of the mast, brackets located on the deck at each side thereof and in line with the mast, rollers on said brackets and flexible means

connecting each side of the weight with the upper part of the mast, said flexible means passing over the rollers.

5. A sailing vessel having a pivoted mast, a bolt 2 located just below the deck on which said mast is pivoted a weight suspended from said bolt, rollers situated above the sides of the vessel and two shrouds connected to the sides of the weight and passing over the rollers and being connected to the upper part of the mast.

6. A sailing vessel having a pivoted mast, a bolt 2 on which the mast is pivoted said bolt lying just below the deck, a bolt 14 in the stem of the vessel, said bolt 14 being in the same line as the axis of the bolt 2 and approximately in the same line as the fastening points of the sails at the fixed parts of the vessel and a bar 13 connecting the lower end of the mast to said bolt 14.

7. A sailing vessel, having a pivoted mast, a bolt 2 on which said mast is pivoted, said bolt being located just below the deck, a casing suspended from said bolt, a weight in said casing, means for connecting said casing to the upper part of the mast and means for holding said mast and casing in their central position against movement.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS JENSEN.

Witnesses:

HENRY BORDEWICH,
AXEL LAHN.