(No Model.)

J. COUCH.

AUTOMATIC MAST SUPPORT.

No. 413,336. Patented Oct. 22, 1889.

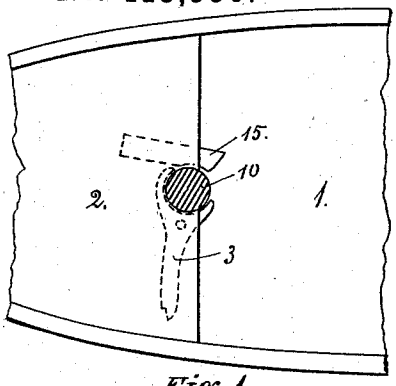


Fig. 1.

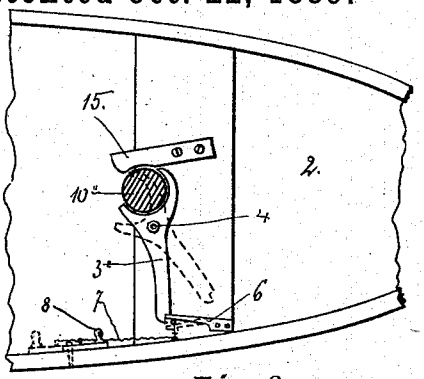


Fig. 2.

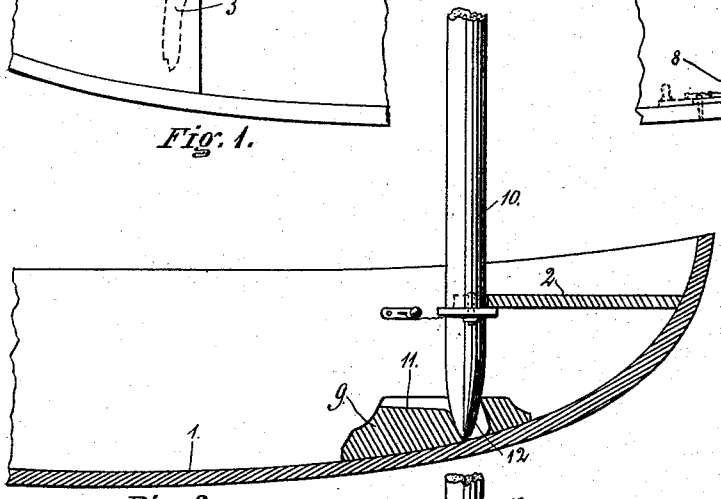


Fig. 3.

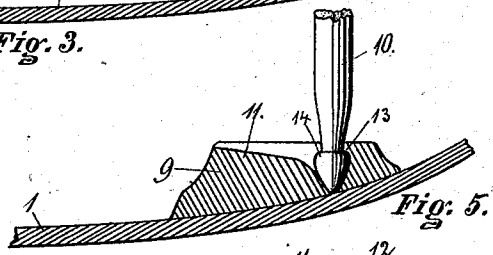


Fig. 5.

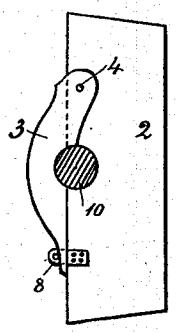


Fig. 4.

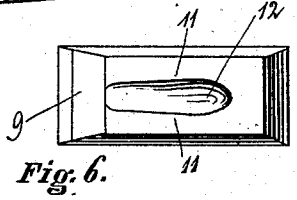


Fig. 6.

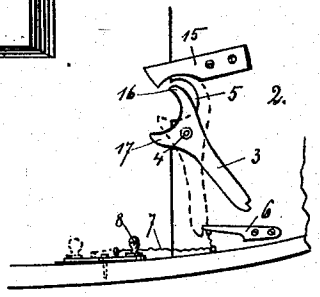


Fig. 7.

WITNESSES.

Rich. George.

M. A. Robinson

INVENTOR.

Jos. Couch

By Pusey & Seery

Attys

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOEL COUCH, OF CLAYTON, NEW YORK, ASSIGNOR OF ONE-HALF TO FRANK L. HALL, OF SAME PLACE.

AUTOMATIC MAST-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 413,336, dated October 22, 1889.

Application filed May 15, 1889. Serial No. 310,807. (No model.)

To all whom it may concern:

Be it known that I, JOEL COUCH, of Clayton, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Automatic Mast-Supporters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to mast-supporters for boats, and more particularly to that class of small boats in which the mast is removable.

In the drawings which accompany and form a part of this specification, Figure 1 shows a top view of a section of a boat and a cross-section of a mast. Fig. 2 shows a bottom view of the parts as shown in Fig. 1. Fig. 3 shows a longitudinal section of a portion of a boat involving or having features of my invention. Fig. 4 shows a different form of construction from that shown in previous figures. Fig. 5 shows a modified form of construction of mast and socket. Fig. 6 shows a top view of the socket. Fig. 7 shows the clasp in its open position and the supporter.

Similar letters and figures of reference refer to like parts in the several figures of the drawings.

Reference being had to the drawings, 1 indicates the shell of the boat.

2 indicates a cross-piece secured in the shell, which may be either a seat or a deck or a supporting-piece for the mast.

5 is a notch or recess in the edge of 2, into which the mast is placed.

3 is an arm, lever, or clasp, pivoted to 2 at 4, and provided with a catch 6 for engaging and securing the arm or lever 3 in fixed position. A wire or cord 7 is attached to the catch 6 and passes along the gunwale of the boat to the button 8, which is a short crank pivoted to the boat and having the wire or cord attached thereto. The button may be located in any convenient part of the boat, and, together with the wire or cord, is provided as a convenient means for throwing the spring-catch out of engagement with the lever or arm.

15 is a projecting finger or fender, which projects from the edge of 2 and aids in placing the mast into the recess 5 and securing it therein. A socket-block 9 is provided, secured in the bottom of the boat substantially under the recess 5, and is provided with a socket 12 and walls 11. The lower portion of the mast is shown, and is indicated by 10. In the case of the construction shown in Fig. 5 the socket-block 9 is also provided with a projecting edge 13, which is adapted to engage upon shoulder 14, provided upon the mast.

It is common in row-boats and other small boats to use a removable mast for sailing purposes when desired, and it has been customary to secure the mast by placing the mast through a hole in a support, as 2, and into a socket in the bottom of the boat. This is an exceedingly difficult and dangerous practice, as it is usually performed during a wind and with a sail affixed to the mast.

It is one of the objects of my invention to provide means for facilitating this operation and avoiding the danger accompanying it, besides providing other advantages.

The device is used as follows: The mast being in the bottom of the boat, as is usual, and the catch in the position shown in Fig. 7, and it being desired to use the mast, the lower end is placed in socket 12 as far as may be, and then the mast is brought to a vertical position and passed into the recess 5, and as it does so it engages prong 16 of lever or arm 3, which turns it on pivot 4 until catch 6 engages the end and secures it, when prong 17 will engage the mast as a clasp on the outside and secure it into recess 5, in which position the mast is ready for use. When it is desired to remove the mast, button 8 is turned into the position shown in dotted lines in Fig. 2, which releases catch 6 from arm 3 and allows the mast to turn down into the boat, which it will do as it is guided by the walls 11, engaging upon either side of the foot of the mast. When the mast passes out of recess 5, it engages against prong 17 of arm 3 and opens it into proper position to again receive the mast when it is desired to again raise the mast.

It will be observed that when the socket and mast shown in Fig. 5 are used it is impos-

sible to displace the foot of the mast when in a vertical position.

An ordinary auger-hole may be substituted for the socket shown, and a pair of movable grasping-fingers or a catch upon the mast for the supporting device, and other alterations and modifications in and from the construction shown made, without departing from the spirit of my invention or the equivalent of my construction.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a mast, a socket adapted to receive the lower end of the mast, a stationary deck or cross-bar above the socket, and an opening and closing clasp for engaging the mast above the socket and securing it to the deck or cross-bar.

2. The combination of a mast, a socket adapted to receive the lower end of the mast, a stationary deck or cross-piece above the socket, and an automatically-closing clasp or catch for engaging the mast above the socket and securing it to the deck or cross-piece.

3. The combination of a mast, a socket adapted to receive the foot of the mast, the supporter-piece, and the bifurcated pivoted lever-catch upon the supporter-piece adapted to engage the mast above the foot and secure the same.

4. The combination, in a mast-supporting device, of the mast, the socket adapted to receive the lower end of the mast, the supporting-piece above the socket having a recess adapted to receive the mast, a clasp for securing the mast in the recess, and a catch for securing the clasp on engagement with the mast.

5. The combination, in a mast-supporting device, of a mast, a socket adapted to receive the lower end of the mast, a stationary supporter-piece above the socket, an automatically closing and an opening clasp for engaging the mast above the socket and securing it to the supporter-piece.

6. In a mast-supporting device, the combination of a mast, a socket adapted to receive the lower end of the mast, a supporter-piece above the socket, an automatically closing and an opening catch for engaging the mast above the socket and securing it to the supporter-piece, and a catch for securing the clasp in closed position.

7. The combination of a mast having a shoulder 14 thereon adjacent to its lower end, a socket having a projecting edge adapted to engage the shoulder on the mast from above, and a mast-supporter engaging the mast above the socket.

8. The combination of a mast, a socket having a deeper portion and opposed walls 11 extending therefrom, and an opening and closing mast-supporter above the socket, substantially as set forth.

In witness whereof I have affixed my signature in presence of two witnesses.

JOEL COUCH.

Witnesses:
A. L. WILLIAMS,
A. J. LEFAIVRE.