# J. Mair

## Sails and Rigging.

No. 95,243. Patented Sep. 28, 1869.

Fig. 1.

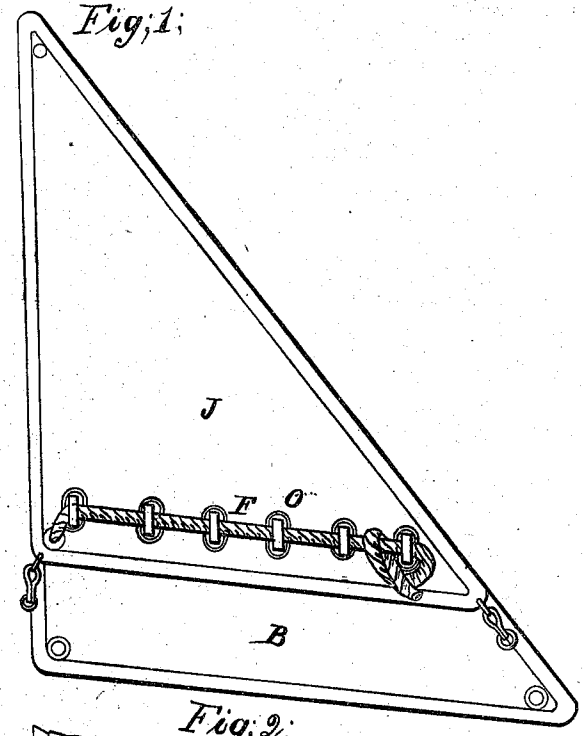



Fig. 2.

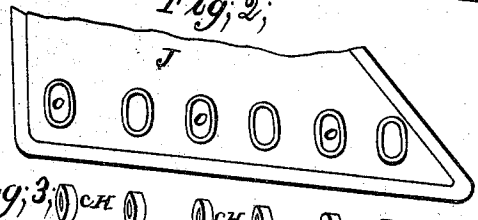



Fig. 3.

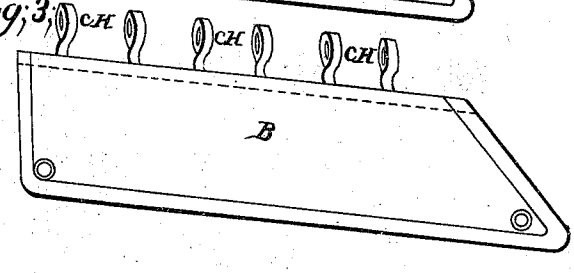



Fig. 4.

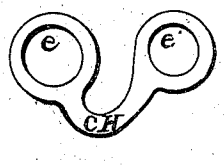
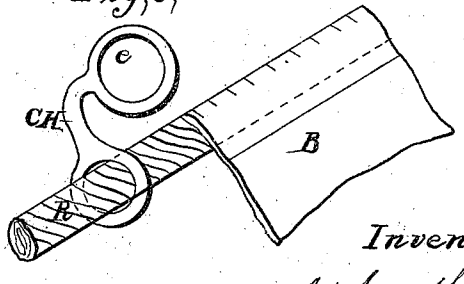



Fig. 5.




Witnesses;
Charles N. Evans
Henry Tolles.

Inventor;
John Mair

...PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

# United States Patent Office.

JOHN MAIR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND HAZLETON W. CRANMER, OF SAME PLACE.

*Letters Patent No.* 95,243, *dated September* 28, 1869.

## IMPROVEMENT IN SAIL-LATCHETS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, JOHN MAIR, of the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful "Improvement in Sails of Vessels;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to overcome the difficulty and delay heretofore experienced in lengthening or shortening sails, by means of bonnets.

The present method of attaching and detaching the bonnets of jibs and other sails is by means of a rope, rove through openings made in the lower part of the sail and the upper part of the bonnet. This is objectionable, both on account of the delay when in a storm, when all haste is required in shortening sail, also in freezing-weather, when the sails and ropes are frozen stiff and difficult to handle.

My invention consists of a series of metallic hooks, constructed especially for this purpose. One end of the hooks are secured to the upper edge of the bonnet, and the opposite end passed through grommets, made in the lower part of the sail, where they (the hooks) are held in place, by means of a rope passing straight through them, said rope being easily and quickly inserted or withdrawn.

Figure 1 is a perspective view of a jib with a bonnet secured to it by my improvement.

Figures 2 and 3 are views of a jib and bonnet detached, showing the arrangement of the hooks and grommets.

Figure 4 is a detached view of one of the hooks.

Figure 5 is a broken view of a bonnet, showing how the hooks are attached thereto.

To enable those skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

C H are curved hooks, provided with eyes *e* and *e'*.

Said hooks are secured to the upper part of bonnet B, at proper distance apart, by means of a rope, R, which passes through the eyes *e'* of the hook. Rope R is sewed fast to the bonnet, thereby attaching the hooks firmly to the canvas.

In the lower part of the jib J, or other sails, and directly opposite to each hook, are formed suitable openings, O, provided with grommets; the ends of the hooks, having eye *e* formed in them, are passed through, and project beyond the openings O in the jib J.

Secured to the upper end of the bonnet B is a rope, F, which passes through jib J at the lower part, and thence through each and every eye *e* of the hooks C H, as shown in fig. 1, where it is then tied.

The corners of the jib J are secured to the bonnet B in the usual manner, by means of sister or shackle-hooks.

Having thus described my invention, its construction and operation,

What I claim, and desire to secure by Letters Patent of the United States, is—

The application to sails of the curved hooks C H, provided with eyes *e* and *e'*, in combination with rope R, openings O, and rope F, for the purpose of readily fastening and releasing the bonnets of jibs and other sails, substantially as specified.

In testimony whereof, I have hereunto signed my name, in the presence of two subscribing witnesses.

JOHN MAIR.

Witnesses:

CHARLES H. EVANS,

HENRY ROELLIG.