

C. S. BARNARD.

Means for Attaching Mast-Hoops to Sails.

No. 168,127.

Patented Sept. 28, 1875.

Fig. 1.

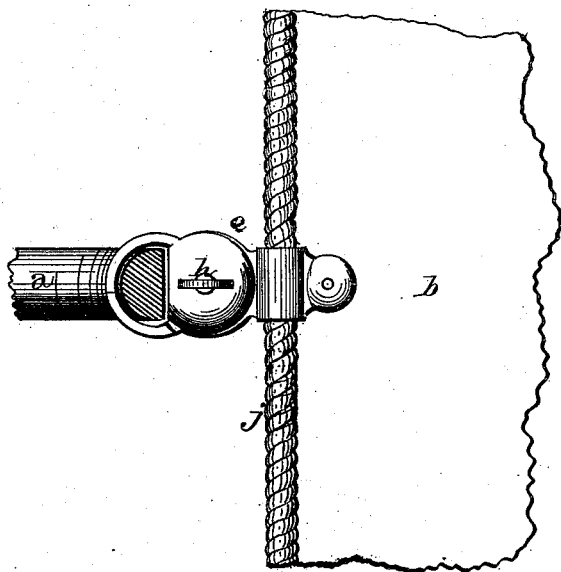


Fig. 2.

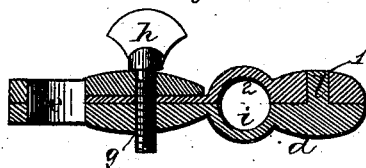


Fig. 3.

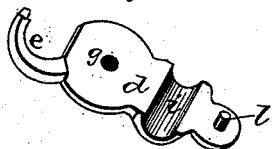
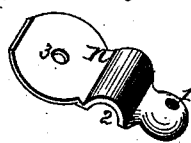


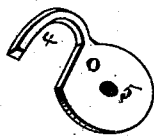
Fig. 4.



WITNESSES.

Wm. Garner,
Jno. W. Darwin.

Fig. 5.



INVENTOR

Chas. S. Barnard
per
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atty

UNITED STATES PATENT OFFICE.

CHARLES S. BARNARD, OF WEST MERIDEN, CONNECTICUT.

IMPROVEMENT IN MEANS FOR ATTACHING MAST-HOOPS TO SAILS.

Specification forming part of Letters Patent No. **168,127**, dated September 28, 1875; application filed August 25, 1875.

To all whom it may concern:

Be it known that I, CHAS. S. BARNARD, of West Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Fastenings for Mast-Hoops; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in fastenings for mast-hoops; and it consists in the arrangement and combination of parts that will be more fully described hereafter, whereby the mast-hoops are securely fastened to the sail, and yet can be detached at pleasure.

The accompanying drawings represent my invention.

a represents an ordinary mast-hoop, *b* a sail, and *c* the clamp by means of which the sail and hoop are fastened together. This clamp is made in three parts, one of which, *d*, is larger than the other. This part *d* has formed upon one end a half of a hook, *e*, for taking hold of the hoop *a*, a hole, *g*, through its central portion, to receive the thumb-screw *h*, that holds all the parts together, a groove, *i*, for catching over the rope *j* in the edge of the

sail, and a pin or projection, *l*, for passing through the sail into the corresponding part *n* of the clamp. The part *n* has an opening, *1*, through one end, to receive the pin or projection *l*, a groove, *2*, corresponding to the one *i*, for fitting over the rope *j*, and a hole, *3*, through which the set-screw *h* passes. The end of this part *n* having the hole for the screw is made perfectly flat, and is held between the end of the part *d* and the third part of the clamp *o*. This part *o* consists of the hook *4*, corresponding to the part *e*, and the body, through which is made a hole, *5*, for the screw *h*.

The two parts *d n* are first put together so as to take hold of the sail, the hook *e* passed under the hoop *a*, and then the third part of the clamp is added, as shown, and securely fastened together by means of the set-screw.

Having thus described my invention, I claim—

A clamp for fastening the hoop to the sail, consisting of the three parts *d n o* and screw *h*, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of August, 1875.

CHARLES S. BARNARD.

Witnesses:

GEO. W. SMITH,
SAMUEL O. CHURCH.