W. METZLER.

Gaff-Topsail Sheet-Chock.

No. 224,027. Patented Feb. 3, 1880.

Fig. 1,

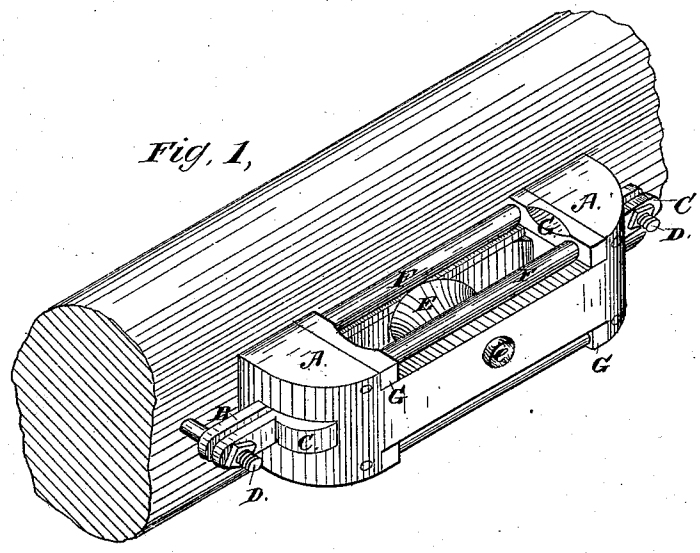



Fig. 2.

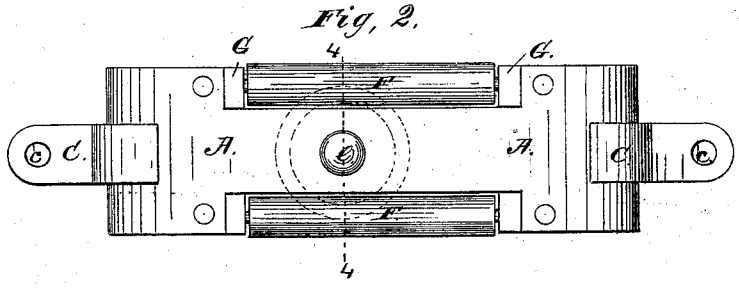



Fig. 3.

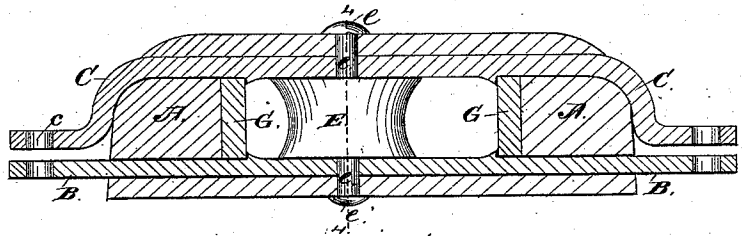
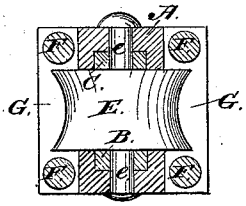



Fig. 4.

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# UNITED STATES PATENT OFFICE.

WILLIAM METZLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO JOHN BAIZLEY, OF SAME PLACE.

## GAFF-TOPSAIL-SHEET CHOCK.

SPECIFICATION forming part of Letters Patent No. 224,027, dated February 3, 1880.

Application filed May 15, 1879.

*To all whom it may concern:*

Be it known that I, WILLIAM METZLER, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Gaff-Topsail-Sheet Chocks, of which the following is a specification.

The subject of my invention is a chock adapted for gaff-topsail sheets, and likewise for top-gallant and royal sheets, being applicable alike to gaffs and yards.

My improved chock is provided on both sides, or top and bottom, with friction-rollers, the ends of which are entirely supported by end plates passing through the inside of the chock, and supported and held in place without screws by longitudinal strengthening plates or straps, which receive the pivot of the sheave, and are pierced at the ends to receive bolts, by which the chock is secured to the gaff or other spar without the use of nails.

The duplication of the friction-rollers admits of the same chock being applied on either side of the gaff or yard.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved chock applied to a topsail-gaff. Fig. 2 is a plan view of the chock detached. Fig. 3 is a longitudinal section of the same. Fig. 4 is a transverse section thereof on the line 4 4 of Figs. 2 and 3.

A A represent parts of the wooden frame, in the base of which is a straight strap, B, of metal, pierced at its extremities with bolt-holes. C is a bridge-strap joining the strap B at its ends, similarly pierced with holes, as shown at *c*, for the reception of attaching-bolts D D, and rising above the base in its central part to a sufficient height to accommodate the sheave E, which works on a pivot bolt or pin, *e*, firmly secured at its extremities in the straps B and C and in the frame. The frame is flanked on either side, above and below, by friction-rollers F F F F, turning at their extremities in metallic plates G, which extend completely through the frame, forming the ends of the sheave opening therein, and are notched to fit the frame and to receive the longitudinal straps, so that they may be held in place without the use of screws.

The rollers F serve to prevent wear by the rubbing of the chain-sheets and friction from slack chains. The provision of these anti-friction rollers and the metallic end plates, to take up wear on both sides of the chock alike, admit of the chock being applied at will to either side of the spar, and it can be placed in position by any sailor without requiring the work of a mechanic.

Having thus described my invention, the following is what I claim as new and desire to secure by Letters Patent:

1. The combination of the base-strap B, the bridge-strap C, and the sheave D with the frame A, substantially as herein described.

2. The combination of the frame A, the base-strap B, the bridge-strap C, the sheave D, pivot E, friction-rollers F, and metallic end plates, G, as and for the purposes described.

WILLIAM METZLER.

Witnesses:

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JOHN A. WIEDERSHEIM.