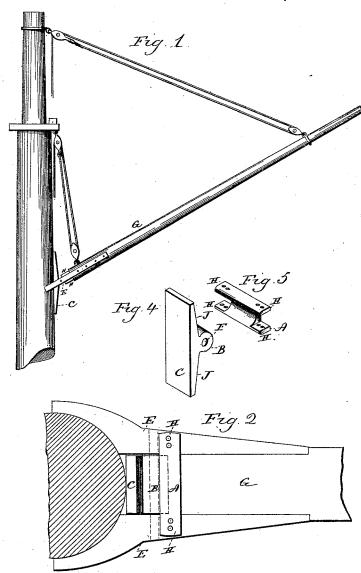
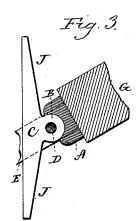
(No Model.)

J. PARKER. SHIP'S RIGGING.

No. 422,619.

Patented Mar. 4, 1890.





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## UNITED STATES PATENT OFFICE.

JOHN PARKER, OF CLINTON, CONNECTICUT.

## SHIP'S RIGGING.

SPECIFICATION forming part of Letters Patent No. 422,619, dated March 4, 1890.

Application filed December 9, 1889. Serial No. 333,027. (No model.)

To all whom it may concern:

Be it known that I, John Parker, of Clinton, in the county of New Haven and State of Connecticut, have invented a new Improve-5 ment in Ship's Rigging; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, 10 and which said drawings constitute part of this specification, and represent, in-

Figure 1, a view in side elevation of a gaff provided with my improved chock and chock-shoe; Fig. 2, an enlarged plan view of 15 the chock and chock-shoe, the gaff, and gaffjaws, a portion of the mast being shown in section. Fig. 3 is an enlarged broken view showing the chock in side elevation and the chock-shoe and the end of the gaff in verti-20 cal section. Fig. 4 is a detached perspective view of the chock. Fig. 5 is a similar view of the chock-shoe.

Heretofore gaff-chocks have been made of hard wood and suspended upon metal pins 25 passed through the gaff-jaws. This construction is objectionable, as the constant outward pressure and the strain upon the chocks cause the holes formed in them to receive the pins to enlarge to such an extent that the 30 chocks will set back against the ends of the gaffs and have to be replaced.

With the end in view of obviating the abovementioned objection, of increasing the durability of gaff-chocks, and of giving a wider 35 range of movement to the gaffs than can be had with chocks as now constructed and applied, my invention consists in a chock-shoe interposed between the chock and gaff and taking the outward pressure of the former 40 from the pin on which it is hung.

My invention further consists in a peculiar chock and in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

As herein shown, my improved chock-shoe A, which is made of metal, is longitudinally concaved upon its inner face to receive a knuckle B, formed upon the outer face of the chock C, which is secured in place by a | and the chock thereof and having its inner

chock-pin D, passing through the gaff-jaws E 50 E, and through a perforation F, extending longitudinally through the knuckle. The outer face of the chock-shoe is made plain to fit squarely against the inner end of the gaff The shoe is held in place by means of 55 four arms H, respectively projecting endwise from the upper and lower edge of each of its ends and adapted to extend over and inclose the gaff-jaws, to which they are fastened by four bolts I, as clearly shown by Figs. 1 60 and 2 of the drawings. The chock is also made of metal and has its outer face beveled, as at J J, from its knuckle to its ends to give more clearance to the shoe, and thus permit the gaff to be given a wider range of 65 movement than could be had were the chock not so beveled.

Under my invention the chock-shoe takes the strain from the chock-pin, and the wear between the shoe and the chock, both being 70 made of metal, is so slight that the chock will never need replacing in the ordinary life of the gaff or other spar of which it may form a part. The shoe also strengthens the gaff-jaws by binding them together.

Although I have shown and described my invention applied to a gaff, it may be applied to a boom or any other spar.

I would therefore have it understood that I do not limit myself to the exact construc- 80 tion shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what 85 I claim as new, and desire to secure by Letters Patent, is-

1. A chock-shoe interposed between a gaff and the chock thereof and taking the strain upon the chock from the chock-pin, substan- 90 tially as described.

2. A chock-shoe interposed between a gaff and the chock thereof and having its inner face longitudinally concaved to receive a knuckle formed upon the outer face of the 95 chock, substantially as described.

3. A chock-shoe interposed between a gaff

face concaved to receive a knuckle formed | brace the gaff-jaws, to which they are bolted, upon the outer face of the chock, which is | substantially as described. upon the outer face of the chock, which is beveled to clear the said shoe, substantially as described.

4. A chock-shoe interposed between a gaff and the chock thereof and provided with arms projecting from its ends and adapted to em-

JOHN PARKER.

Witnesses:

FRED. C. EARLE, LILLIAN D. KELSEY.