

J. HIGGINS.

Improvement in Coupling for Standing Rigging.

No. 130,049.

Patented July 30, 1872.

Fig. 1.

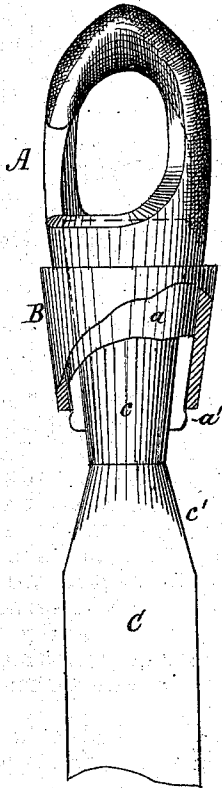


Fig. 2.

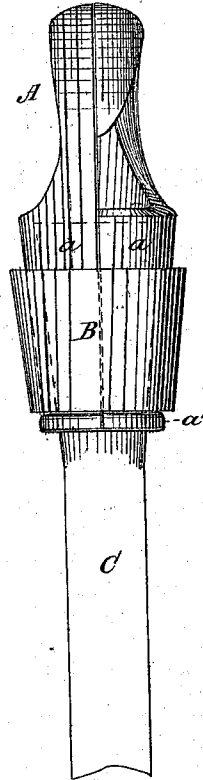
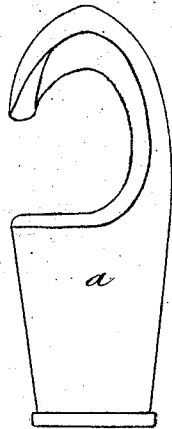


Fig. 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JAMES HIGGINS, OF MONTAGUE, MICHIGAN.

## IMPROVEMENT IN COUPLINGS FOR "STANDING RIGGING."

Specification forming part of Letters Patent No. 130,049, dated July 30, 1872.

Specification describing an Improved Coupling, invented by JAMES HIGGINS, of Montague, in the county of Muskegon and State of Michigan.

The invention consists in a metallic coupling, formed of two reversely-crooked hooks and a sleeve, which is tapered in the same direction as the shanks of the hooks. The coupling is intended for use with the standing rigging of small vessels, and in attaching wooden braces or shrouds without nails, rivets, or screws.

Figure 1 is a front elevation of the coupling, partly broken away; Fig. 2, an end elevation; and Fig. 3, a detail view of one of the hooks.

A represents one hook, having hollow and tapering shank *a*, to which the other is made to correspond, but reversed. On their sectional faces they are smooth, and made to coincide, as shown in Fig. 3 of drawing. B is a tapering sleeve, and C a piece of wood having tapered portion *c* and the shouldered portion *c'*.

The application is as follows: The hooks A

are each placed over a ring from opposite directions until they coincide on their inner faces. The sleeve B is caused to slide on the wood C, with its smaller end toward the shouldered portion *c'*. The shanks *a a* spread apart, while the conical portion of the wood C is inserted between them and the sleeve; then pushed over said shanks. Any strain upon either wood or hooks will cause the taper of the wood to press outwardly the reversely-tapered and sectional hook-shank against the sleeve, and thus prevent all separation of the parts.

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

The hooks A A having internally concave and tapering shanks *a a* and the tapering sleeve B, combined with a tapering piece, C *c*, as and for the purpose described.

JAMES HIGGINS.

Witnesses:

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