H. L. LEONARD.

Joint for Fishing-Rod.

No. 207,665. Patented Sept. 3, 1878.

Fig. 1.

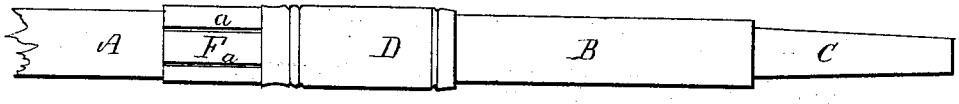


Fig. 2.

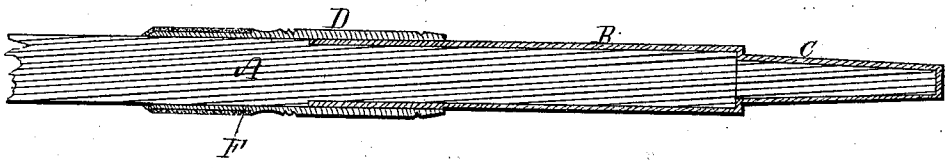
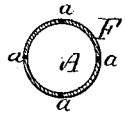


Fig. 3.



Witnesses.
F. Hunnewell.
M. C. Boardman.

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H. L. Leonard.
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UNITED STATES PATENT OFFICE.

HIRAM L. LEONARD, OF BANGOR, MAINE.

IMPROVEMENT IN JOINTS FOR FISHING-RODS.

Specification forming part of Letters Patent No. **207,665**, dated September 3, 1878; application filed April 17, 1878.

To all whom it may concern:

Be it known that I, HIRAM L. LEONARD, of Bangor, Penobscot county, Maine, have invented certain Improvements in Joints of Fishing-Rods, of which the following is a specification:

This invention relates to means for strengthening the joints of fishing-rods, or the pieces composing the various lengths of the rod, at the point of junction with the ferrules; and consists in the employment of a split tube extending from the outer end of the ferrule and inclosing the said piece, the purpose of the invention being to strengthen what has heretofore been considered the weakest part of a rod without interfering with its elasticity.

The drawings accompanying this specification represent, in Figure 1, an elevation, and in Figs. 2 and 3 sections of one end of a piece or length of a fishing-rod with my improvement applied thereto.

In said drawings, A represents the large end of what may, for example, be the middle piece of a trout-rod, the metallic ferrule of the same being shown at B and its tenon portion at C.

D represents a short sleeve or tubular cap, which incloses the joint between the end of the ferrule B and the rod-piece A, and serves to protect and strengthen such joint.

Thus far I have described a construction in common use in the manufacture of fishing-rods. Heretofore the weak place has been at the point where the cap D stops on the rod piece or length A, and rods frequently fracture at this locality.

In carrying out my present improvement, I prolong the length of the cap D over the piece A into an extension, F, and split this extension by sawing at several points a saw-kerf, *a*. This splitting of the end of the cap D affords a considerable degree of elasticity without depriving it of the requisite amount of strength, the result being that this portion of the piece or length A is to a very great degree strengthened and insured against fracture.

To protect the parts from injury by water or moisture, I wind the split extension F with silk, as shown in Fig. 2 of the drawings, and thoroughly varnish the outside, and, in order that the outer surface of the silk winding may be flush with that of the adjacent end of the cap D, I reduce the diameter of the extension to the requisite extent, as shown in Fig. 2.

A modification of this invention would be the employment of a tube partially split or a series of metallic strips placed between the rod-piece A and cap D, and protruding beyond the inner end of the latter. The plan herein shown, however, is preferable.

I claim—

In combination with the piece A, ferrule B, and cap D, a split extension or series of stay-strips, essentially as and for the purposes stated.

HIRAM L. LEONARD.

Witnesses:

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