

(No Model.)

F. D. DIVINE.
FISHING ROD.

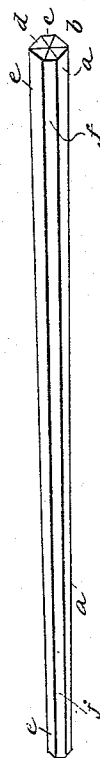
No. 476,370.

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Fig. 1.



Fig. 2.



WITNESSES:

Frank S. Ober
Wm. Carter Dick

INVENTOR

Fred. D. Divine

BY

Wm. S. Schmitt

ATTORNEY.

UNITED STATES PATENT OFFICE.

FRED D. DIVINE, OF UTICA, NEW YORK.

FISHING-ROD.

SPECIFICATION forming part of Letters Patent No. 476,370, dated June 7, 1892.

Application filed March 8, 1892. Serial No. 424,240. (No model.)

To all whom it may concern:

Be it known that I, FRED D. DIVINE, a citizen of the United States, residing in the city of Utica, county of Oneida, and State of New York, have invented certain new and useful Improvements in Fishing-Rods, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a portion or section of a rod containing my invention, and Fig. 2 is a section of a similar rod to which my invention has not been applied.

My invention relates particularly to improvements in that kind of rod which is commonly designated as "split bamboo;" and the object of my invention is to increase the stiffness, resilience, strength, and durability of such rods.

Former methods of constructing split-bamboo rods are well understood. The rod was made up of equal longitudinal sections *a b c d e f* of such substantially-triangular cross-section as to combine together to constitute a rod of the desired exterior surface. Fig. 2 illustrates this former arrangement of the said sections, in which it will be observed that the sections are straight and extend parallel to each other and to the central longitudinal axis of the rod. The sections are held together by gluing the two interior faces of each to the adjacent faces of its neighbors, and also strengthened by windings of silk or other material, such as *o o o*, Fig. 1. Inasmuch as the reel and line are always carried on one, or, as it may be called, the "front," side of the rod, it is obvious that the principal strain in casting and fishing is confined to those of the said sections which extend in front and the opposite or back side of the rod, and that a strain of an entirely different character is simultaneously and always brought to bear upon the remaining, or, as they may be termed, "lateral," sections. The wear and strain upon the rod is not thus uniformly distributed among the sections, and undesirable

warps, bends, breaks, longitudinal separation of sections from each other, too-great pliancy, and too-slow recovery or resilience often result. By my invention the strain and wear is much more uniformly distributed among the sections. Each section is obliged to perform at different points in the rod the same function as the other sections, and this has obviated to a very large degree the drawbacks incident to the old style of construction.

My invention consists in securing the sections together, so that though retaining their parallelism to each other they will no longer be straight and parallel to the central longitudinal axis of the rod, but will extend in spirals around that axis. I have discovered that after the sections have been glued together and before the glue has finally set or hardened the sections comprising the rod can be thus twisted spirally, while the rod itself is held straight. This may be done either by simple manipulation or by the assistance of any machinery or apparatus adapted to the purpose. The sections and constituted rod are thus brought into the shape illustrated by Fig. 1. The angle of the spiral will of course be varied according to the quality of the bamboo and the degree of stiffness and resilience required.

n n, Fig. 1, represent an ordinary line-guide; *o o*, ordinary silk wrappings or windings to assist in holding the sections together and in place; *m*, the ordinary female ferrule. The opposite end of the "joint" or portion of the rod shown is illustrated as cut off square, so as to show a cross-section.

What I claim as new, and desire to secure by Letters Patent, is—

A substantially-straight split-bamboo fishing-rod composed of united parallel spirally-twisted longitudinal sections, substantially as and for the purpose described.

FRED D. DIVINE.

Witnesses:

G. FRED. RALPH,
ALBERT J. SEATON.