

(No Model.)

E. HORTON.

FISHING ROD.

No. 386,321.

Patented July 17, 1888.

Fig. 1



Fig. 2

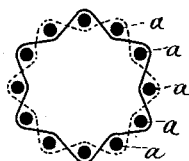
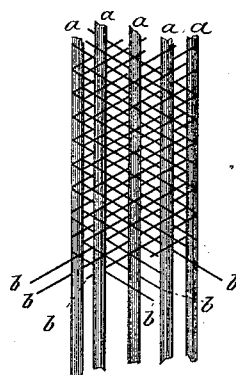


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

EVERETT HORTON, OF BRISTOL, CONNECTICUT, ASSIGNOR TO THE HORTON MANUFACTURING COMPANY, OF SAME PLACE.

FISHING-ROD.

SPECIFICATION forming part of Letters Patent No. 386,321, dated July 17, 1888.

Application filed May 21, 1888. Serial No. 274,461. (No model.)

To all whom it may concern:

Be it known that I, EVERETT HORTON, of Bristol, in the county of Hartford and State of Connecticut, have invented a new Improvement in Fishing-Rods; 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, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of a portion of the rod complete; Fig. 2, a transverse section of the rod, illustrating the combination of the longitudinal and circumferential wires; Fig. 3, a side view of a portion of the rod, illustrating the interlacing of the strands of circumferential wire with the longitudinal wires.

This invention relates to an improvement in that class of fishing-rods which are made of metal and of tubular shape, such as shown and described in Letters Patent of the United States No. 259,153, granted to me May 8, 1887. In that invention the rod is composed of several tubular sections, each section made from thin spring-tempered metal and of substantially cylindrical shape, the respective sections adapted to slide one within another telescopically.

The object of my present invention is to produce a rod from wire which will possess quite as great elasticity as the sheet-metal tubes of my former patent, and which may be produced at substantially no greater cost; and it consists in a rod composed of one or more sections, the said one or more sections consisting of several longitudinal elastic wires arranged in a circle corresponding to the diameter of the rod, combined with several strands of elastic wire interlaced circumferentially with each other and around the said longitudinal wires, as more fully hereinafter described.

I prefer to make the rod in several sections; but it may be made a continuous rod, if desired. In its production I employ several longitudinal wires, *a a*, (more or less in number,) according to the size of the sections or part of the rod. These wires are arranged longitudinally, and are supported in a circle corresponding substantially to the diameter of the part of the rod where they are located, and around these wires I apply several strands of wire, the said strands passing alternately out-

side and inside the said longitudinal wires and interlaced with each other between the longitudinal wires, as represented in Fig. 2, and also as seen in Fig. 3, *b* representing the strands of wire. This interlacing and combining of the longitudinal wires with the circumferential strands is best produced in machines substantially such as commonly employed in applying fibrous covering to wire and for like purposes, the strands being carried by spools in the machine, while the longitudinal wires are manipulated to cause the strands to pass alternately outside and inside of the said longitudinal wires.

In the manufacture of the rod the strands of wire will necessarily be annealed, and then after the rod or section is complete it will be tempered in the usual manner for tempering such wires, the wire used being preferably steel.

The longitudinal wires give to the rod a considerable elasticity, and the interlacing strands not only bind those wires together, but add materially to the strength and elasticity of the rod.

As I have stated, the rod may be made complete in a single piece, or it may be made in sections, but preferably in sections. In such case the respective ends of the sections will be provided with coupling devices, may be such as commonly used in fishing-rods, or any suitable connection not necessary to be described, as such connections do not form an essential feature of the present invention.

The sections of the rod are tubular, and the sections may be combined as in my previous patent before referred to, and so that the line may run within the rod.

I claim—

A fishing-rod composed of one or more sections, the said one or more sections composed of several longitudinal elastic wires, *a*, arranged in a circle corresponding to the diameter of the rod required, combined with several strands of wire circumferentially around the said several longitudinal wires, but interlaced with the said longitudinal wires and with each other between the said longitudinal wires, substantially as described.

EVERETT HORTON.

Witnesses:

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