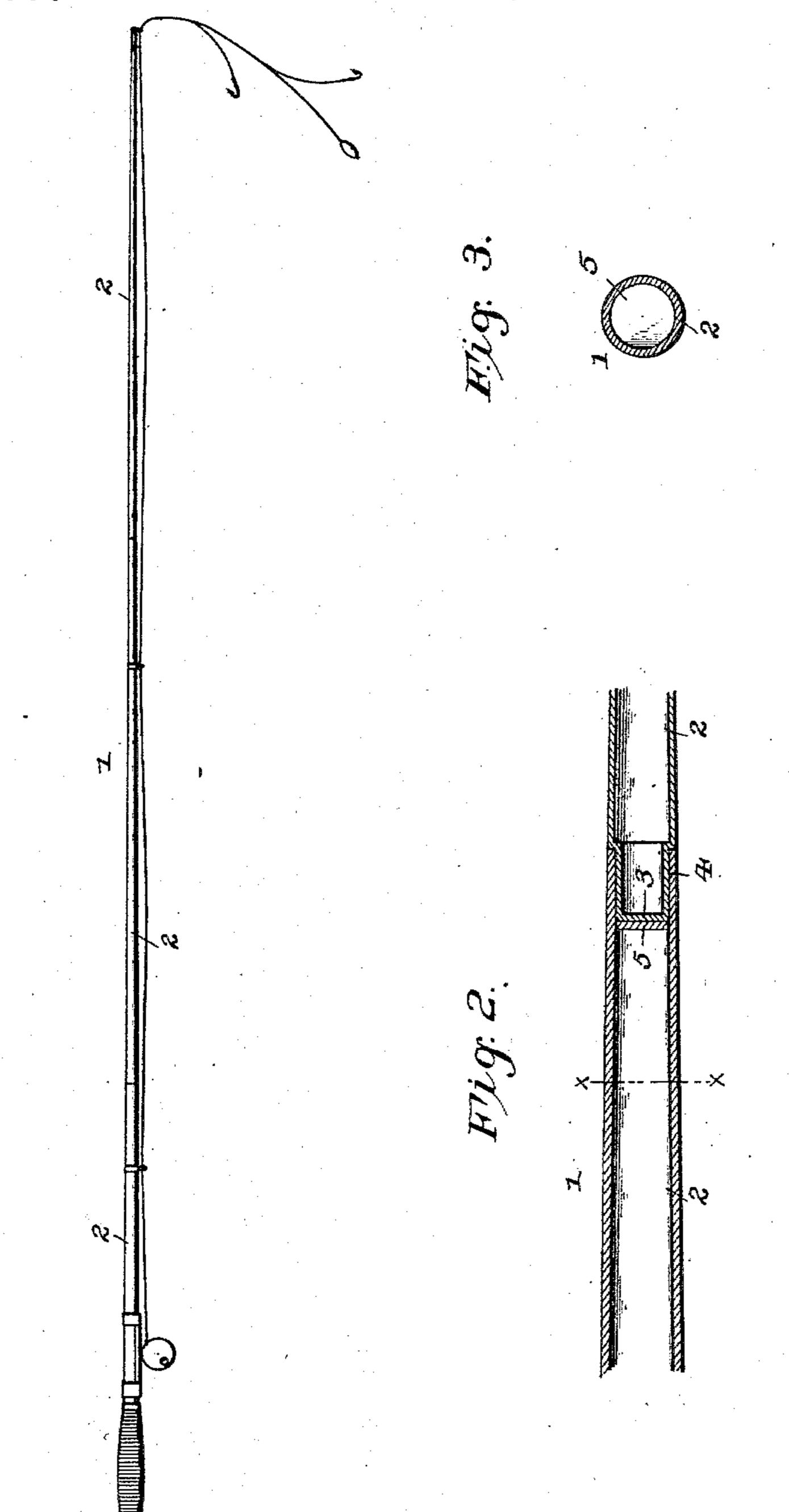
(No Model.)

## B. G. LEEPER. FISHING ROD.

No. 553,005.

Patented Jan. 14, 1896.



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## United States Patent Office.

BARTRAM G. LEEPER, OF POUGHKEEPSIE, NEW YORK, ASSIGNOR OF ONE-HALF TO GEORGE I. VARNEY, OF SAME PLACE.

## FISHING-ROD.

SPECIFICATION forming part of Letters Patent No. 553,005, dated January 14, 1896.

Application filed November 5, 1894. Serial No. 527,884. (No model.)

To all whom it may concern:

Be it known that I, BARTRAM G. LEEPER, a citizen of the United States, residing at Pough-keepsie, in the county of Dutchess and State of New York, have invented a new and useful Fishing-Rod, of which the following is a specification.

This invention relates to fishing-rods; and it has for its object to provide a new and use10 ful metal fishing-rod that will be entirely seamless, to insure a uniformity of strength throughout and to avoid the objectionable "rib."

To this end, therefore, the main and primary object of the present invention is to construct a practically perfect metal fishing-rod that will bear the strain placed thereon proportionately throughout its entire length by reason of the peculiar construction thereof, and also will be so constructed as to provide for the total exclusion of water from the interior thereof to prevent rusting.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the drawings, Figure 1 is an elevation of a complete fishing-rod constructed in accordance with this invention. Fig. 2 is an enlarged detail sectional view of a portion of the rod at the joint of two of the rod-sections. Fig. 3 is a detail transverse sectional view on the line x x of Fig. 2.

Referring to the accompanying drawings, 1 designates a metal fishing-rod consisting of a series of jointed tubular metal sections 2. The tubular metal rod-sections 2 are entirely seamless throughout their entire lengths and are closed at one end, as at 3, and open at their opposite ends, as at 4, to form receiving-sockets for the closed ends of the rod-section adapted to be joined therewith, and within the open ends of the tubular seamless rod-sections 2 are tightly fitted partition-disks 5, that serve the purpose of entirely excluding moisture or water from the interior of the tubular sections, and also act in the capacity

of stops to limit the insertion of the smaller 50 rod-sections in the open ends of the larger sections.

The construction of rod just described is substantially similar to the shape and manner of assembling the rods that are now on 55 the market; but the salient feature of the present invention resides in the fact that the rod-sections 2 are made of seamless metal tubes that are spun, drawn, or swaged into the proper tapered shape in order to give the 60 rod the usual tapered form, and the present invention also contemplates the construction of the tubular rod-sections in varying thicknesses, so that the walls of the tubular sections will gradually decrease in thickness 65 toward the small end of the rod, thereby producing a rod with a perfect outline and one in which the strain will be distributed proportionately throughout the entire length of the rod.

From the foregoing it will be obvious that the herein-described construction of rod avoids the objectionable rib of tubular metal fishing-rods having side seams, and furthermore by reason of the construction of the rod- 75 sections of seamless tubes such sections will be provided with a uniform temper throughout and will therefore avoid the hard and soft spots found in the tubular rod-sections tempered in the usual way, and, in short, the pres- 80 ent invention contemplates obviating the objections to the tubular metal fishing-rods now on the market that are made from sheetsteel of equal thickness. In the manufacture of this rod, the sheet-steel is rolled up 85 with the joint or seam unsoldered so that water can freely enter into the rod, and in this construction of rod it will also be obvious that the same cannot be tempered evenly, and the united edges thereof are always lia- 90 ble to overlap or become out of circular alignment.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or 95 sacrificing any of the advantages of this invention.

Having thus described the invention, what

is claimed, and desired to be secured by Letters Patent, is—

A fishing-rod consisting of a series of jointed seamless tubular metal sections, the walls of each successive section proportionately decreasing in thickness toward the small end of the rod, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

BARTRAM G. LEEPER.

Witnesses:

FRANK S. BISSELL, JONATHAN DICKINSON.