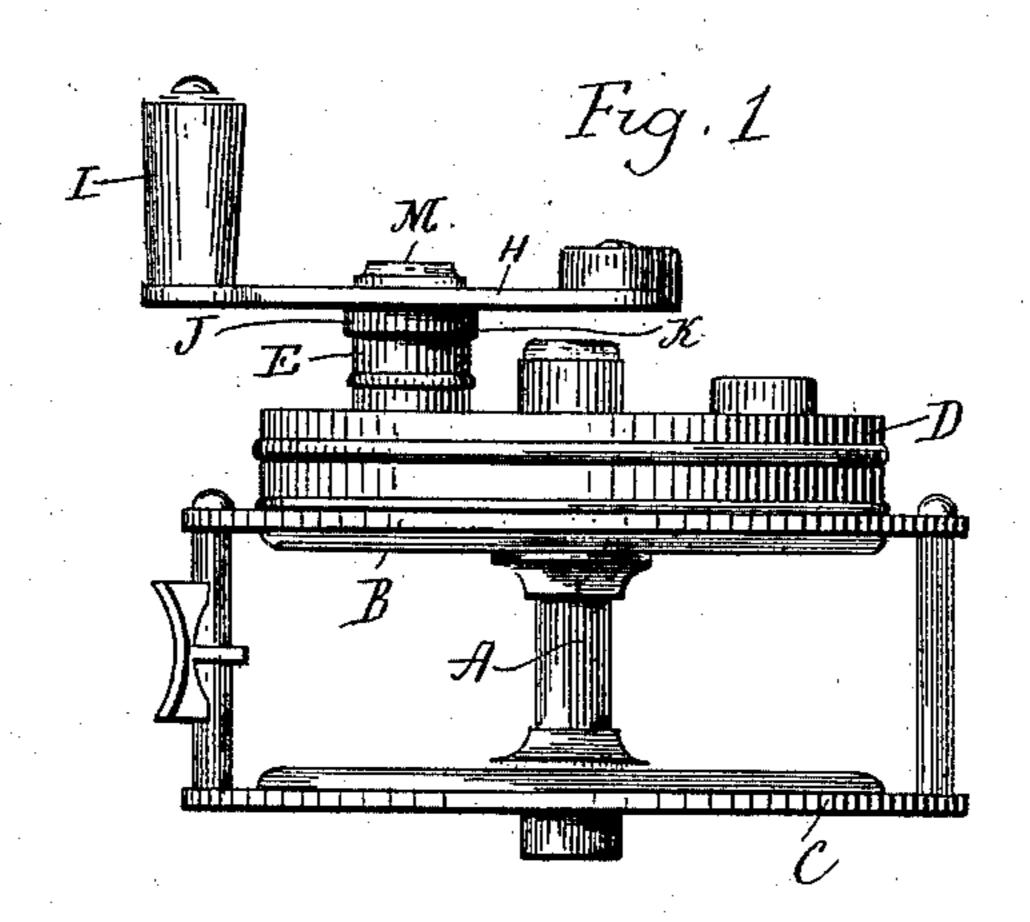
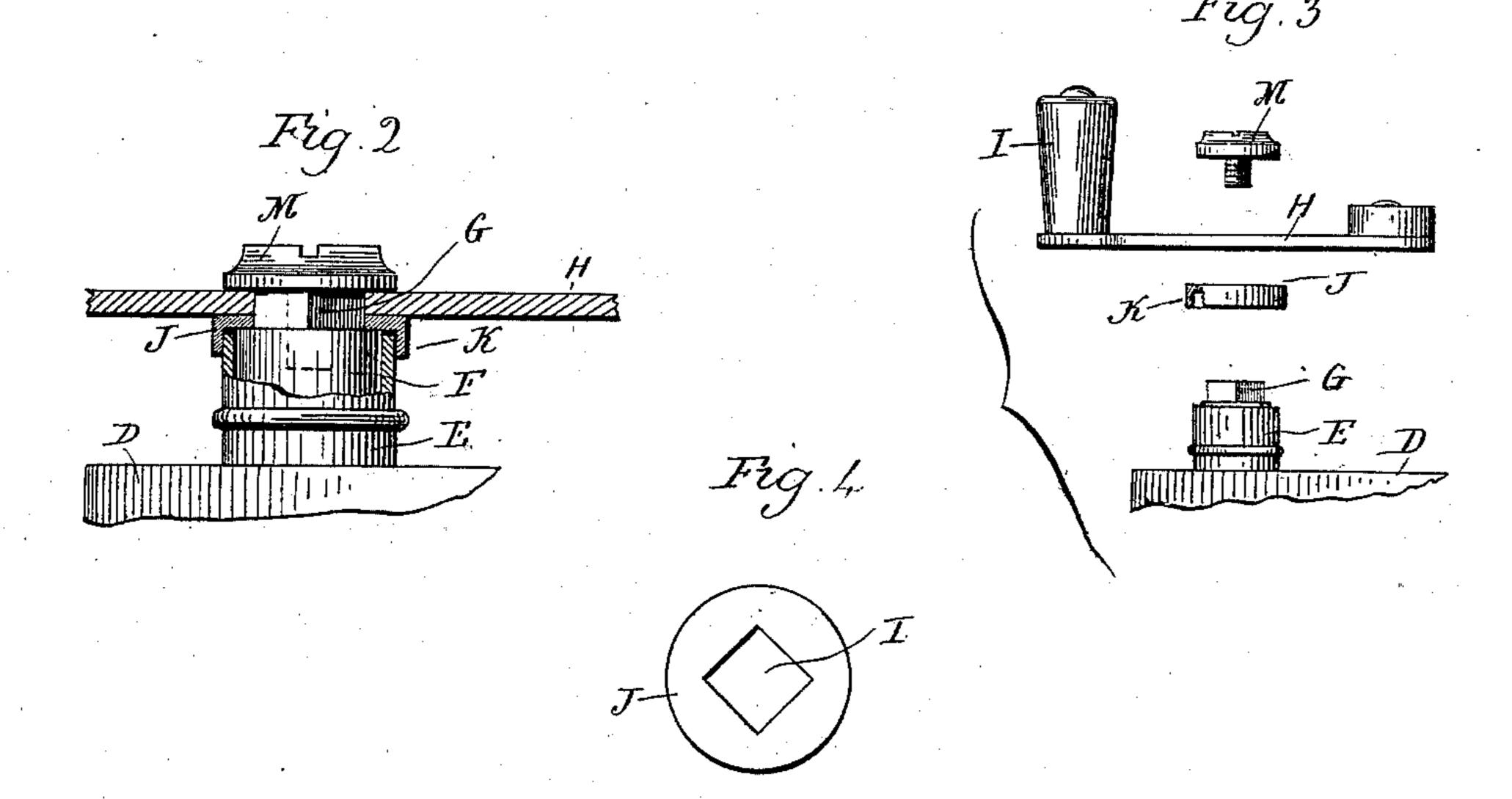
## A. B. HENDRYX. FISHING REEL.

(Application filed May 26, 1902.)

(No Model.)





Witnesses Joshimmy Clara L. Weed. Andrew B. Hendry .
By Atty Seymour & Earer

## United States Patent Office.

ANDREW B. HENDRYX, OF NEW HAVEN, CONNECTICUT.

## FISHING-REEL.

SPECIFICATION forming part of Letters Patent No. 705,758, dated July 29,1902.

Application filed May 26, 1902. Serial No. 108,953. (No model.)

To all whom it may concern:

Be it known that I, ANDREW B. HENDRYX, of New Haven, in the county of New Haven and State of Connecticut, have invented a new 5 and useful Improvement in Fishing-Reels; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact descripto tion of the same, and which said drawings constitute part of this specification, and represent, in-

Figure 1, a side view of a reel embodying my invention; Fig. 2, a side view, partially in 5 section, showing the arrangement of my improved protecting-cap in its relation to the adjacent parts of the reel; Fig. 3, a side view of similar parts, detached, on a small scale; Fig. 4, a top or plan view of my improved cap

20 detached.

This invention relates to an improvement in fishing-reels, and particularly to that class which are known as "multiplyingreels"—that is, reels in which one end of the 25 spool is mounted in a case or chamber with gears or pinions between the hub of the spindle and the shaft upon which the handle is mounted, so that one revolution of the handle will impart several revolutions to the spool. 30 In the usual construction of this class of reels the post or shaft upon which the handle is mounted is inclosed by a sleeve projecting outward from the case; but as the handle cannot be arranged in close contact with the 35 outer end of the sleeve an opening is formed through which water and dirt secures ready access to the case.

The object of this invention is to provide means for closing the outer end of this sleeve 40 and not interfere with the free movement of the handle; and the invention consists in the construction as hereinafter described, and particularly recited in the claim.

The arrangement of the general parts of the reel is of usual construction—that is, the spool A is mounted between two plates B C, to one of which a casing D is attached, through which the hub of the spool extends and by which the usual gears are inclosed. Projectgo ing outward from one side of this case is a

sleeve or collar E, through which the shaft F of the multiplying-pinion extends, the outer end G of the shaft being squared to receive the handle-arm H, which is provided at one end with the usual finger-piece I. Before ap- 55 plying the handle-arm H, I place upon the sleeve a cap J, which is provided with a flange K, which sets over the outer end of the sleeve, and the internal diameter of the flange corresponding closely to the external diameter 60 of the sleeve, so that while it fits closely it is free to turn thereon. In the top of the cap is a squared opening L, corresponding to the squared outer end G of the pinion-shaft F, and so that the cap will be turned by that shaft. 65 Over this cap the handle-arm H is placed and secured to the pinion-shaft by means of the usual screw M, which extends into the outer end of the pinion-shaft F and clamps the handle thereto. It will be understood 70 that the cap J rests upon the main portion of the pinion-shaft F rather than upon the outer end of the sleeve E, and so as to be held out of contact therewith. It will be seen, therefore, that this cap does not interfere with the 75 free rotation of the handle and the pinionshaft, but closes the space between the under side of the handle-arm H and the outer end of the sleeve, and so prevents access of dirt and water into the casing.

Having fully described my invention, what I claim as new, and desire to secure by Letters

Patent, is—

In a reel, the combination with the caseplate thereof, having a sleeve extending out- 85 ward therefrom, a pinion-shaft extending outward through said sleeve, of a cap bearing upon said shaft and having a flange setting over the outer end of said sleeve, and a handle secured to said shaft and bearing upon said 90 cap which rotates with it, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ANDREW B. HENDRYX.

Witnesses:

FERDINAND A. WAGNER, EDWARD N. PECK.