

No. 610,604.

Patented Sept. 13, 1898.

A. W. HAZELRIGG.

FISHING REEL.

(Application filed Jan. 29, 1898.)

(No Model.)

Fig. 1.

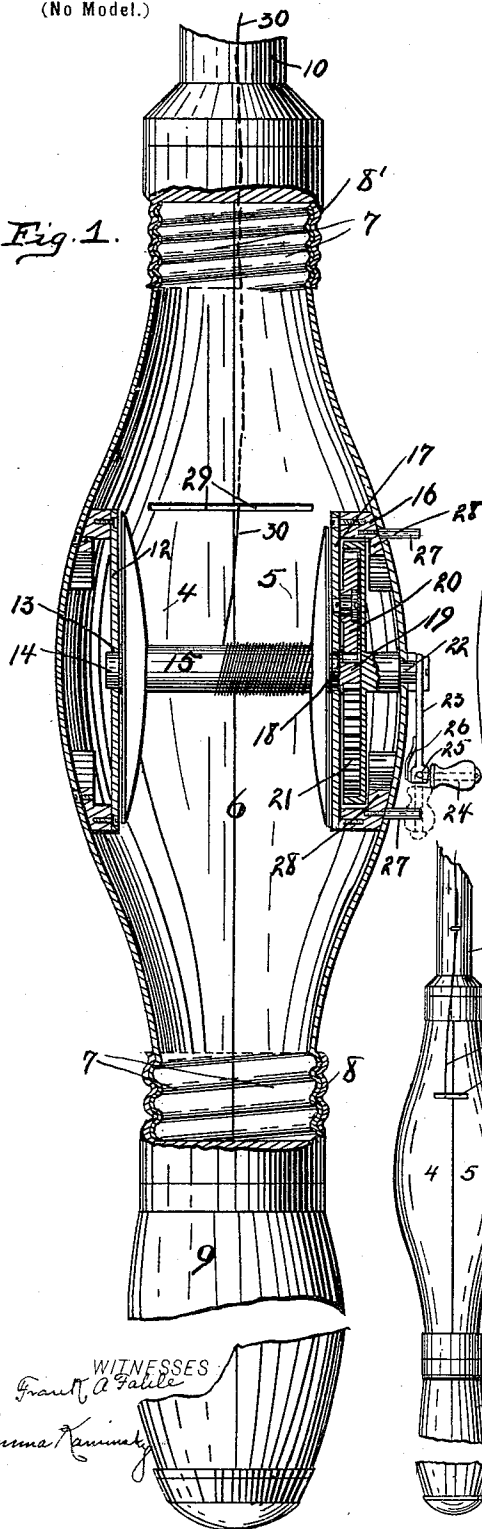


Fig. 2.

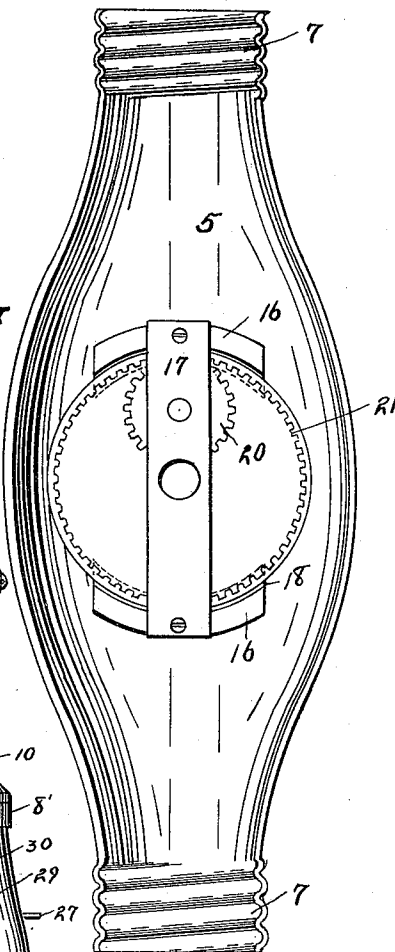
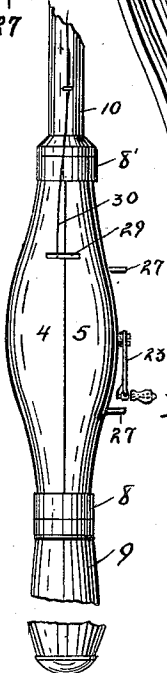


Fig. 3.



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FISHING-REEL.

SPECIFICATION forming part of Letters Patent No. 610,604, dated September 13, 1898.

Application filed January 29, 1898. Serial No. 668,370. (No model.)

To all whom it may concern:

Be it known that I, ALBERT W. HAZELRIGG, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Fishing-Reel, of which the following is a specification.

My invention relates to an improvement in reels for fishing-rods.

10 The object of my invention is to produce a reel for fishing-rods which may be easily attached to any rod, which when attached will not throw the rod out of balance, and in which the bobbin may be easily removed, so that a
15 bobbin containing a different line may be easily substituted.

The accompanying drawings illustrate my invention.

20 Figure 1 is a central vertical section parallel with the axis of the bobbin. Fig. 2 is a side elevation of one-half of the bobbin-holder at right angles to the axis of the bobbin and with the bobbin removed. Fig. 3 is a side elevation on a smaller scale.

25 In the drawings, 4 and 5 indicate two bulb-shaped hollow registering sections, which when placed together form a chamber 6, in which the reel mechanism is mounted. The sections 4 and 5 are provided at each end with
30 stems 7, which may or may not be provided with screw-threads, as shown. The stems 7 are adapted to fit into the sockets 8 and 8', carried by the handle 9 and the rod 10, respectively. Secured to the inside of section
35 4 are two blocks 11, which support a bridge or cross-piece 12, provided at its middle with a bearing 13, which is adapted to receive the stud 14, which forms one end of the axis of a bobbin 15. Mounted on the inside of section
40 5 are two blocks 16, similar to the blocks 11, and the said blocks are connected by the cross-piece 17, provided at its middle with a bearing adapted to receive the stud 18, which forms the other end of the axis of the bobbin
45 15. The stud 18 projects through the cross-piece 17 and is provided at its outer end with a gear 19, which meshes with a gear 20, supported in any suitable manner upon the outside of the cross-piece 17. Meshing with the
50 gear 20 is an internal gear 21, which is supported upon a stud-shaft 22, formed integral therewith and projected through the wall of

the section 5. Secured to the outer end of the shaft 22 is a crank 23, which is provided at its outer end with a handle 24. The handle 55 24 is preferably pivoted upon the outer end of the crank at 25 and is held at right angles to the crank, as shown in full lines in Fig. 1, or parallel thereto, as shown in dotted lines, by means of a spring 26, secured to the crank 60 and having its free end in engagement with the squared end of the handle-pin. When the handle is thrown into the position shown in dotted lines in Fig. 1, it engages any one of the pins 27, projecting from section 5, thus 65 forming a lock for the reel. In order to support the gear 21, the blocks 16 are provided with shoulders 28, between which and the plate 17 the periphery of the gear 21 lies. Formed in the two sections 4 and 5 are the 70 registering slots 29, which together form an opening through which the line 30 may pass. The bobbin may be rotated in the usual manner by turning the crank 23. If for any reason the user desires to remove the bobbin, he 75 removes the handle 9 and the rod 10. The two sections 4 and 5 may be then easily separated, the cross-pieces 12 and 17 slipping from the studs of the bobbin. The bobbin is thus 80 entirely freed without in any manner disturbing the gearing. A new bobbin may be inserted by inserting the stud 18 through the cross-piece 17 and into mesh with the gear 20, then placing section 4 in register with section 5, allowing the stud 14 to pass into the 85 bearing in the cross-piece 11. The cross-pieces are preferably detachably secured to their respective blocks.

It will be noticed that all of the gearing and the bobbin are protected within the cham- 90 ber formed by the two sections 4 and 5.

I claim as my invention—

1. In a fishing-reel, the combination with a pair of separable hollow sections, arranged to form a portion of the rod, of a bearing carried upon the inside of each of said sections, a bobbin mounted between said bearings, one end of the axis of said bobbin extending through one of the bearings and provided with a gear at its outer end, an internal gear 100 mounted inside of one of said hollow sections and having its shaft extending through the wall thereof, intermediate gearing between the two gears, and a crank secured to the outer

end of the shaft of the second gear, substantially as described.

2. In a fishing-reel, the combination with a pair of separable hollow sections, a bearing
5 carried by one of said sections for receiving one end of the axis of a bobbin, a bearing-plate 17 carried by blocks 16 upon the inside of the other hollow section and forming a bearing for the other end of the axis of the bob-
10 bin, a bobbin mounted between the two bearings and having an axis projecting through the plate 17, a gear formed upon said projecting end, a gear 20 mounted upon the bearing-plate and in mesh with the gear carried by
15 the bobbin, a gear 21 in mesh with the gear 20 and provided with a shaft extending through the wall of the hollow section, and a crank secured to the outer end of the shaft, substantially as described.

20 3. A bobbin for fishing-reels, the said bobbin provided with a pair of studs forming the axis thereof, and a gear, of the same or less diameter than one of said studs, carried by said stud, the arrangement being such that
25 the gear may be passed through an opening arranged to form a bearing for the inner end of the gear-carrying stud.

4. A bobbin for fishing-reels, the said bobbin being provided with a stud forming one

end of the axis thereof and the said stud having a gear formed in said stud and of the same or less diameter, the arrangement being such that the gear may be passed through an opening arranged to form a bearing for the inner
30 end of the stud, substantially as described. 35

5. In a fishing-reel, the combination with the bobbin and a support therefor, of a crank for operating the bobbin, a handle pivoted to said crank, a spring for holding said handle
40 either at right angles to or parallel with the said crank, and one or more pins or projections carried by the bobbin-support in position to engage the handle when thrown parallel
45 with the crank, substantially as described.

6. As an article of manufacture, a reel-support consisting of a pair of hollow ellipsoidal
45 registering sections provided, at the ends with means by which they may be secured in line with and form a part of a fishing-rod, and
50 means carried upon the inside of said sections, for supporting a bobbin, the said bobbin being entirely surrounded by the said sections.

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