No. 841,796. PATENTED JAN. 22, 1907.

T. J. LLEWELLYN & J. E. PFLUEGER.

FISHING REEL.

APPLICATION FILED OCT. 25, 1906.

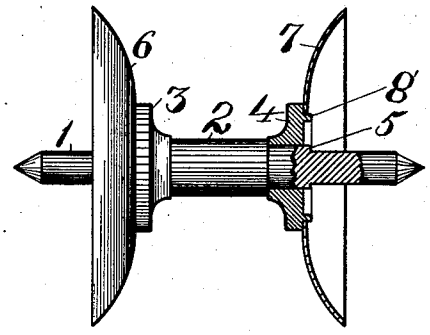


Fig. 1.

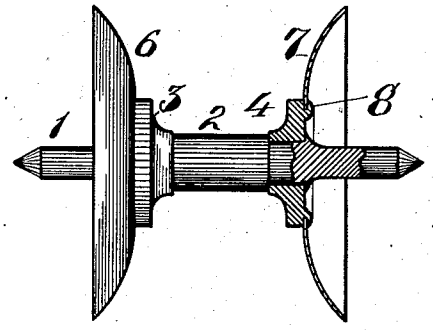
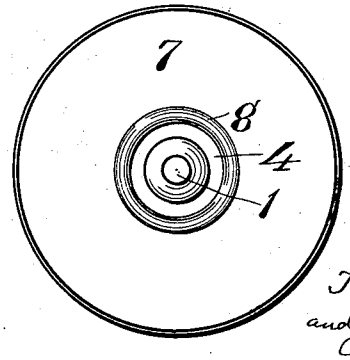


Fig. 2.

Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS J. LLEWELLYN AND JOSEPH E. PFLUEGER, OF AKRON, OHIO, ASSIGNORS TO THE ENTERPRISE MANUFACTURING COMPANY, OF AKRON, OHIO, A CORPORATION OF OHIO.

FISHING-REEL.

No. 841,796. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed October 25, 1906. Serial No. 340,536.

To all whom it may concern:

Be it known that we, THOMAS J. LLEWELLYN and JOSEPH E. PFLUEGER, citizens of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented new and useful Improvements in Fishing-Reels, of which the following is a specification.

This invention has relation to fishing-reels and similar devices, and especially relates to the winding-drums on which the line is wound; and it has for its object the construction of a reel or drum for devices of the class named which will be strong, durable, efficient in use, and comparatively easy and cheap to manufacture.

The invention more particularly aims to provide new and improved means for uniting the disks forming the sides to the axle portion of the drum and to secure increased strength to said union over the means now customarily employed.

With the foregoing and other objects in view the invention consists of the novel construction, combination, and arrangement of parts constituting the invention to be hereinafter referred to, and illustrated in the accompanying drawings, which form a part of this specification, in which is shown the preferred embodiment of the invention; but it is to be understood that changes, variations, and modifications can be resorted to which come within the scope of the claim hereunto appended.

In the accompanying drawings, in which similar reference-numerals indicate like parts in the different figures, Figure 1 is a side elevation of the drum portion of a fishing-reel in the process of manufacture with portions thereof in section to better illustrate the construction thereof. Fig. 2 is a view similar to Fig. 1, showing the drum portion after completion; and Fig. 3 is an end view looking from the right of Fig. 2.

In the drawings the reference-numeral 1 indicates a shaft provided with conically-formed ends adapted to rest in suitable bearing in the reel-frame. Secured centrally on the shaft is a sleeve 2, customarily made of a material not readily affected by moisture. Also mounted on the shaft at opposite ends of the sleeve 2 are a pair of similarly-constructed flanges 3 4. The shaft 1 outside of the flanges 3 4 is reduced in diameter, and the point of junction with the remainder thereof is formed by a shoulder 5.

In mounting the sleeve 2 and flanges 3 4 on the shaft 1 they are placed in the position indicated in Fig. 1 with a portion of the enlarged part of the shaft projecting beyond the outside faces of the flanges 3 4, and in order to secure these three elements in proper position and prevent their rotation on the shaft 1 as an axle the shoulders 5 are upset or wiped down over the flanges 3 4 to such an extent as to eliminate the shoulder 5 and make a smooth joint between the exterior of the shaft 1 and the outer faces of the flanges 3 4, thereby securely compressing the flanges 3 4 against the sleeve 2, as shown in Figs. 2 and 3.

In order to secure the side disks designated in the drawings by the reference-numerals 6 and 7 to the outer faces of the flanges 3 4, an annular ridge or flange 8 (shown best in Fig. 1) is formed on the flanges. The disks 6 and 7 are formed preferably in a concavo-convex shape, with a central opening of such diameter as to nicely fit over the outer periphery of the annular ridge 8 and to lie in contacting relation with the outside of the flanges 3 4, surrounding the ridge 8. These ridges 8 are considerably wider than the thickness of the material of which the disks 6 and 7 are composed, and in order to secure the disks fixedly to the flanges 3 4 the material of which the ridges are composed is spun or upset outwardly over the adjacent portion of the disks, as shown in Fig. 2, and with sufficient pressure to tightly clamp the portions of the disks immediately surrounding the central aperture thereof between the upset ridges 8 and the outer faces of the flanges 3 4. This union between the disks 6 and 7 and the flanges 3 4 is so nearly perfect as to render any danger of the disks being torn from their mountings comparatively insignificant. The drum thus constructed is then mounted in the reel-frame in the ordinary manner.

It will be obvious that in manufacturing this device it is entirely within the scope of this invention to form the sleeve 2 and hubs 3 4 in one piece; but experience has shown that it is cheaper to make them separately.

It will be noted that the uniting of the disks to the flanges at a considerable distance from the axial line of the shaft 1 will be productive of a much more secure union than if this joint were made at a point immediately surrounding the shaft itself.

What we claim, and desire to secure by Letters Patent, is—

A reel-drum comprising a side flange provided with an annular projecting ridge capable of being upset and a perforated disk fitting over said annular ridge arranged to be clamped against the side of said flange when said ridge is upset, whereby said disk is fixedly secured in position.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

THOMAS J. LLEWELLYN.
JOSEPH E. PFLUEGER.

Witnesses:
G. A. PFLUEGER,
C. E. HUMPHREY.