W. CARTER.

FISHING REEL.

APPLICATION FILED JUNE 9, 1919.

1,321,284. Patented Nov. 11, 1919.

Fig-1-

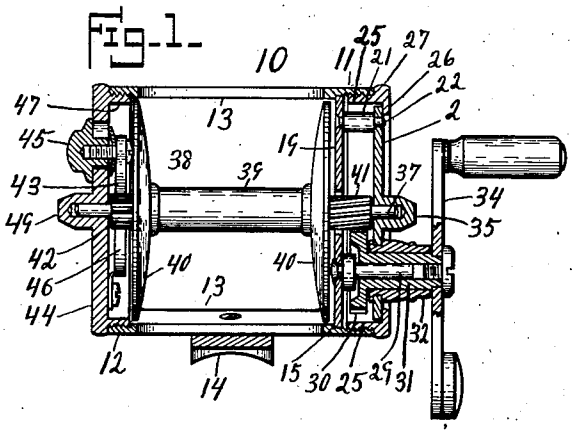


Fig-2-

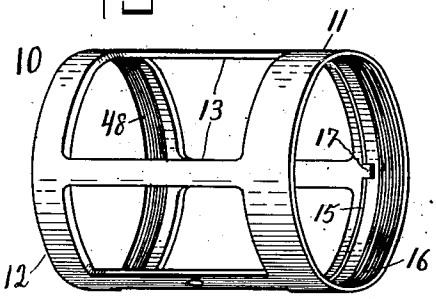


Fig-3-

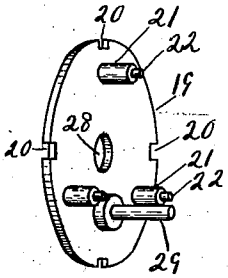


Fig-4-

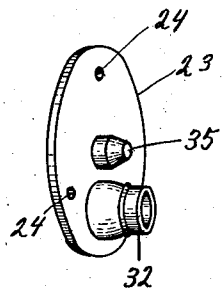


Fig-5-

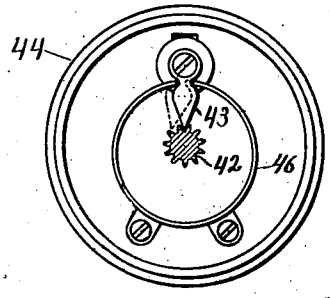
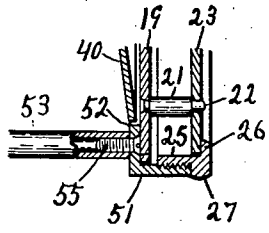


Fig-6-



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FISHING-REEL.

1,321,284. Specification of Letters Patent. Patented Nov. 11, 1919.

Application filed June 9, 1919. Serial No. 302,634.

To all whom it may concern:

Be it known that I, WILLIAM CARTER, a citizen of the United States, residing in the city of Louisville, county of Jefferson, and State of Kentucky, have invented a new and useful Improvement in Fishing-Reels, of which the following is a specification.

This invention relates to fishing reels, and an object is to provide means for retaining within the reel frame, spaced head plates carrying the multiplying gear and bearing for the front end of the spool.

A further object is to provide means for adjusting the angular relation of the handle relative to the spool shaft.

A still further object is to provide a construction which may be easily assembled and disassembled without the aid of tools, which shall be strong, durable and efficient in service.

With the foregoing and other objects in view, the invention consists of the novel construction and arrangement of parts illustrated in the accompanying drawing, which forms a part of the annexed specification, wherein is set forth an embodiment of the invention, but it is to be understood that such changes and modifications may be resorted to as come within the scope of the claims appended hereunto.

In the drawing, wherein similar reference characters designate like parts in the several views, Figure 1, is a central longitudinal section of a reel embodying the invention: Fig. 2, a perspective view of a reel frame: Fig. 3, a perspective view of an inner head-plate: Fig. 4, a perspective view, of an outer head plate: Fig. 5, an elevation of the rear cap, showing the click; and Fig. 6 a sectional detail of a modified construction.

The embodiment of the invention illustrated herewith comprises a frame —10— consisting of end bands —11, 12—, connected by longitudinal bars —13— to one of which bars, a seat —14— is secured, said seat furnishing means whereby the reel may be attached to a pole. The band as 11, on one end, known as the front end, is of greater width than the other band, and is provided with an internal annular seat, or shoulder —15— and with internal screw threads —16— which terminate a spaced distance from said shoulder. A fixed projection, or stop —17— is positioned on the shoulder. A disk, or plate —19— is positioned on the shoulder, fitting snugly within the band but not so closely but that it can be removed with the fingers. This plate is provided with a plurality of peripheral recesses or notches —20— either one of which may be fitted over the stop 17. Necessarily one must fit over the stop in order that the plate may seat properly. A plurality of shouldered posts, or studs —21— are rigidly erected upon this plate and have each an end portion —22— of reduced diameter. An outer disk, or plate —23—, of less diameter than the inner plate, is provided with a plurality of perforations —24— adapted to fit over the reduced ends of the studs, the plate resting on the shoulders thereof, whereby it is maintained in spaced relation to the inner plate. An exteriorly threaded collar —25— is positioned between the edge of the outer plate 23, and the band 11, being in threaded engagement with the interior threads 16 on the band. This collar is provided with an internal annular flange —26— which is engaged over the outer face of the plate 23, and holds it securely on the studs 21, and at the same time holds the assemblage on the shoulder 15. The diameter of the outer plate is such that the collar may pass it freely, but without any play. The width of the collar is such that when the plate 23 is drawn home, on the studs, the lower edge of the collar will be clear of the inner plate. The collar is provided with an outer flange —27—which overlies the wall 11, and presents a finished appearance and at the same time provides means whereby it may be readily grasped when it is desired to unscrew the collar for the purpose of disassembling the reel. The inner plate is provided with a central aperture —28—, and with a bearing spindle —29—which is rigidly erected thereon for the reception of a multiplying gear —30—. The gear is provided with an elongated hub —31— that extends through a sleeve —32— which is secured in an aperture in the outer plate, a handle —34— being secured by suitable means of the outer ends of the hub. A boss —35— positioned on the outer plate, centrally thereof, provides a bearing for a shaft —37— which carries a spool —38—. The spool comprises a core —39— and spaced concavo-convex heads —40—. On the shaft,

near the forward end thereof, a pinion —41— is positioned, when the reel is assembled this pinion extends through the central aperture 28, in the inner plate, and is engaged with the multiplying gear. A pinion —42— positioned on the shaft near the outer end thereof is adapted to be engaged by a click —43— which is positioned on the inner side of a cap —44—. The click is pivotally attached to a sliding button —45— by means of which it may be engaged with or withdrawn from engagement with the pinion. A circular spring —46—, the ends of which bear on the respective sides thereof hold the click normally in a central position but permit it to be swung in either direction therefrom, by the rotation of the pinion. The cap is provided with an exteriorly threaded flange —47— adapted to be engaged with interior threads —48— on the band 12. A boss —49— centrally positioned on the cap provides a bearing for the rear end of the shaft. It will be observed that to withdraw the spool from the frame it is only necessary to unscrew the cap. And that by unscrewing the collar 25, the outer and inner plates, together with the multiplying gear, may be removed, all without the use of any tool. In reassembling, either of the peripheral notches in the inner plate may be placed over the stop, thereby positioning the handle either forward, back of, above or below the center of the reel as best suits the fancy of the user.

In Fig. 6, a modified construction is shown, wherein the frame comprises a pair of substantially cup shaped end members connected by posts. The end members consist of side walls —51— and bottom flanges —52— to which posts —53— are secured by suitable means such as screws —55—. In this construction the flange, 52 constitutes the shoulder upon which the inner head plate 19 is seated.

This is something that cannot be done with any other reel.

Having thus described my invention so that persons skilled in the art pertaining thereto can make and use the same,

I claim:

1. In a fishing reel, a frame, an inner and an outer head-plate therefor, means carried by one of the plates and engaging the other of said plates for holding said plates in spaced relationship, and means adapted to be engaged respectively with the outer plate and the inner surface of the frame to retain the plates within the frame in their respective relationship.

2. In a fishing reel, comprising tubular frame provided with an interior shoulder, a stop on said shoulder, an inner plate seated on the shoulder and having a peripheral recess fitting over said stop, an outer plate of less diameter than the inner plate. means positioned between said plates and adapted to maintain them in spaced relationship, and an annular member positioned between the edge of the outer plate and the inner surface of the frame and engaged respectively therewith for the purpose of retaining the plates in their respective relationship with each other and with the frame.

3. A fishing reel comprising a frame provided with an interior annular shoulder, a stop on said shoulder, an inner plate adapted to be seated on the shoulder, said plate having a plurality of peripheral recesses either one of which may be fitted over said stop, means positioned between the plates and adapted to maintain them in spaced relationship, an outer plate of less diameter, and an annular member positioned between the edge of the outer plate and the inner surface of the frame and engaged respectively therewith for the purpose of retaining the plates in their relationship with each other and with the frame.

4. In a fishing reel, a frame having an internal annular shoulder, a stop thereon, an inner plate adapted to be seated on said shoulder, said plate having a plurality of peripheral recesses, any one of which may be engaged over said stop, an outer plate, spacing members positioned between said plates, and a locking member interposed between the outer plate and the frame and interengaged therewith for the purpose of retaining the plates within the frame, and in their respective relationship thereto.

5. In a fishing reel, a frame having an internal annular shoulder, a stop thereon, an inner plate adapted to be seated on said shoulder, said plate having a plurality of peripheral recesses any one of which may be engaged over said stop, an outer plate, spacing members between said plates, a collar positioned between the edges of the outer plate and the frame, said collar being in threaded engagement with the frame and having an internal annular shoulder engaged over the outer plate.

WILLIAM CARTER