No. 822,436. PATENTED JUNE 5, 1906.

B. K. DONALDSON.

FISHING REEL.

APPLICATION FILED AUG. 28, 1906.

Fig. 1

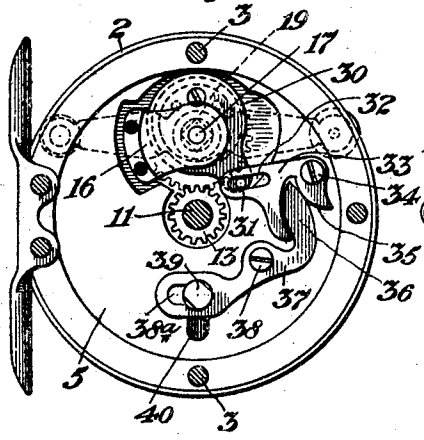


Fig. 2

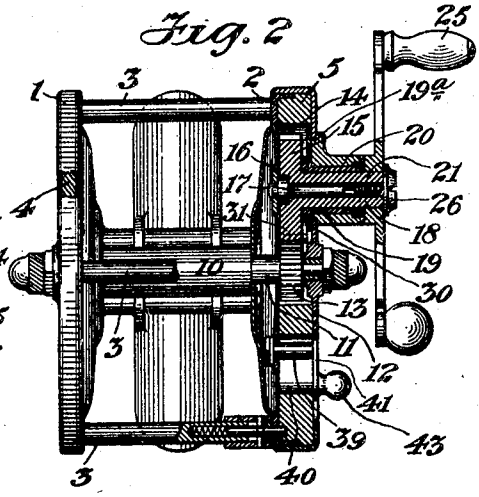


Fig. 3

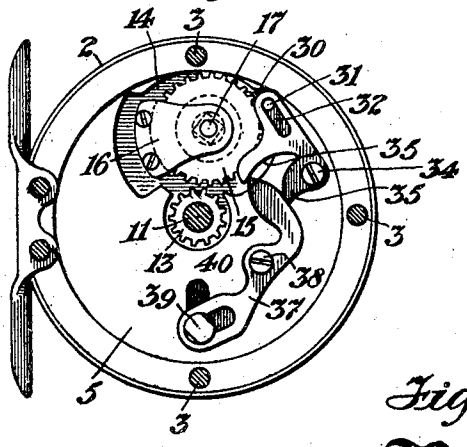


Fig. 4

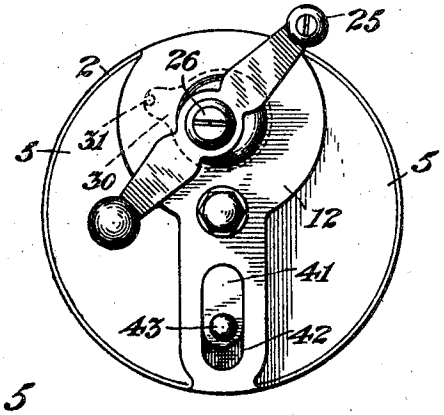


Fig. 5

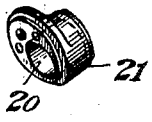
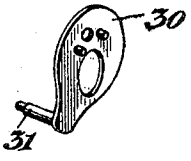


Fig. 6



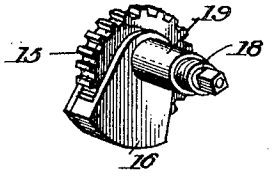


Fig. 7.

Witnesses
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Inventor
Benjamin K. Donaldson.
By his Attorney
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UNITED STATES PATENT OFFICE.

BENJAMIN K. DONALDSON, OF NEW YORK, N. Y.

FISHING-REEL.

No. 822,436. Specification of Letters Patent. Patented June 5, 1906.

Application filed August 26, 1905. Serial No. 275,856.

To all whom it may concern:

Be it known that I, BENJAMIN K. DONALDSON, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fishing-Reels, of which the following is a specification.

My invention relates to fishing-reels.

It will be understood that to make a successful cast no greater resistance than absolutely unavoidable should be offered to the free rotation of the spool, as this would tend to greatly reduce the throw or unreeling of the line.

It is therefore the object of this invention to provide a fishing-reel having means whereby the spool may at the will of the operator be disconnected from the mechanism for revolving it, so as to offer only the minimum amount of resistance to its revolution when casting or connected with the mechanism for revolving it, so as to readily wind the line thereon.

It is a further object of this invention to provide means for the successful accomplishment of this object which will possess advantages in point of perfect operation, simplicity, and inexpensiveness in construction.

In the drawings, Figure 1 is a longitudinal sectional view through the reel-frame, showing the spool connected with the mechanism for revolving it. Fig. 2 is an edge view, partly in section, of the reel, showing the parts in the position indicated in Fig. 1. Fig. 3 is a vertical longitudinal sectional view similar to Fig. 1, but showing the spool disconnected with the mechanism for revolving it. Fig. 4 is a side view of the reel, the parts being in the position shown in Fig. 3. Fig. 5 is a perspective view of the bearing-hub for the shiftable cog-wheel, and Fig. 6 is a perspective view of the arm for connecting the hub with the shifting mechanism. Fig. 7 is a perspective view of the yoke and gear therein.

In all the figures of the drawings illustrating my invention like reference characters designate corresponding parts.

Referring to the drawings, the reel-casing comprises flanged rings 1 and 2, connected together by rods 3 and having disks 4 and 5, respectively, seated therein.

The spool 10 is mounted in said casing upon a revoluble shaft 11, one end of which is journaled in the disk 4 and the other end journaled in a plate 12, secured to the outer face of the disk 5, said shaft having a pinion 13 secured thereon within a slot 14 in the disk 5, adapted to normally mesh with a gear 15, which is also located within said slot 14.

The gear is revolubly mounted within a shiftable yoke 16 upon a pin 17 and has a laterally-projecting sleeve 18 rotatably journaled in a sleeve 19, projecting from the yoke 16, said sleeve 19 itself being rotatably journaled in an eccentric hole 20 in a hub 21, rotatably journaled in a hole 19^a in the plate 12.

A handle 25 for turning the cog 15 is secured on the squared end of the sleeve 18 of said gear by a screw 26.

One end of a slotted arm 30 is secured to the inner end of the hub 21, so that its slot registers with the eccentric hole 20 therein, and its other end is provided with a pin 31, slidably engaging an elongated slot 32 in a lever 33, mounted on a pivot-screw 34 and having an open cam-slot 35 engaged by the nose 36 of a lever 37, mounted on a pivot-screw 38, the other end of said lever 37 having an elongated slot 38^a, slidably engaged by a pin 39, slidably in an elongated slot 40 in the disk 5, and said lever 37 is connected with a plate 41, slidable in a slot 42 in the plate 12 and having a knob 43, affording means for operating it.

The operation is as follows: To prepare the reel for casting, the plate 41 is pushed in, turning the lever 37 on its pivot and causing its nose to ride against the cam-slot in the lever 33, turning said lever 33 on its pivot, and by its connection with the arm 30 turning said arm and the hub 21, connected therewith, and thereby shifting the yoke 16 and the gear 15, journaled therein, out of mesh with the pinion 13, and to return the parts to their normal condition for winding the line on the spool the plate 41 is simply slid outwardly in the slot 42.

I do not wish to be understood as limiting myself to the precise details and arrangements of parts shown and described, but reserve the right to all modifications within the scope of my invention.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fishing-reel, the combination of a casing, a shaft rotatable therein, a spool secured on said shaft, a pinion secured on said shaft, a rotatable hub having an eccentric

hole, a shiftable yoke having a sleeve rotatable in said hole, a gear mounted in said yoke normally meshing with said pinion and having a sleeve rotatable in the sleeve of the yoke, a slidable plate for shifting said yoke, and intermediate levers operatively connecting said hub and plate, substantially as described.

2. In a fishing-reel, the combination of a casing, a shaft rotatable therein, a spool secured on said shaft, a pinion secured on said shaft, a rotatable hub having an eccentric hole, a shiftable yoke having a sleeve rotatable in said hole, a gear mounted in said yoke normally meshing with said pinion and having a sleeve rotatable in the sleeve of the yoke, a handle for turning said gear, a slidable plate for shifting said yoke and intermediate levers operatively connecting said hub and plate, substantially as described.

3. In a fishing-reel, the combination of a casing, a shaft rotatable therein, a spool secured on said shaft, a pinion secured on said shaft, a rotatable hub having an eccentric hole, a shiftable yoke having a sleeve rotatable in said hole, a gear mounted in said yoke normally meshing with said pinion and having a sleeve rotatable in the sleeve of the yoke, and means for turning said hub to shift said yoke and thereby throw the gear into and out of mesh with the pinion, substantially as described.

4. In a fishing-reel, the combination of a casing, a shaft rotatable therein, a spool secured on said shaft, a pinion secured on said shaft, a rotatable hub having an arm provided with a pin and an eccentric hole, a shiftable yoke having a sleeve rotatable in said hole, a gear mounted in said yoke, normally meshing with said pinion, and having a sleeve rotatable in the sleeve of the yoke, a handle secured to the sleeve of the gear a pivoted lever having an open cam-slot and an elongated slot engaged by the pinion the arm of the hub, a pivoted lever one end having a nose engaging the cam-slot in the other lever and the other end having an elongated slot and a slidable plate having a pin engaging the slot in the last-mentioned lever, substantially as described.

Signed at New York, in the county of New York and State of New York, this 24th day of August, A. D. 1905.

BENJAMIN K. DONALDSON

Witnesses:
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ALBERT B. BLACKWOOD.