

No. 699,763.

Patented May 13, 1902.

G. R. MATHEWS.

REEL.

(Application filed Oct. 23, 1901.)

(No Model.)

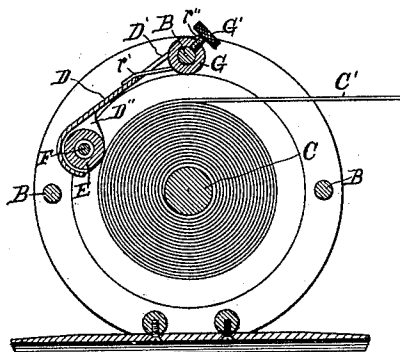


Fig. 1

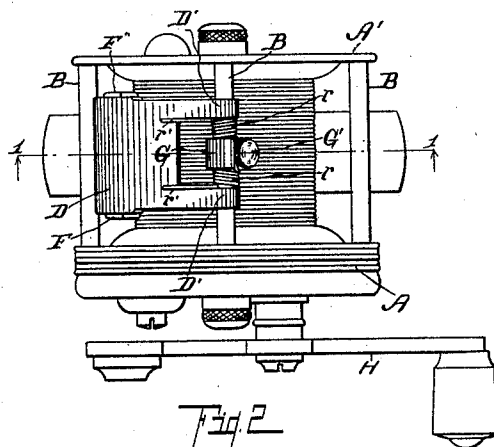


Fig. 2

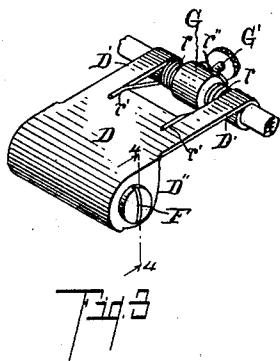


Fig. 3

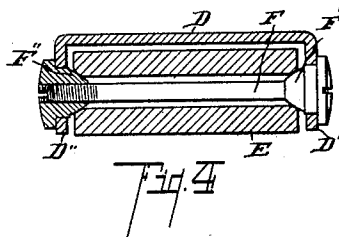


Fig. 4

Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE R. MATHEWS, OF KALAMAZOO, MICHIGAN.

REEL.

SPECIFICATION forming part of Letters Patent No. 699,763, dated May 13, 1902.

Application filed October 23, 1901. Serial No. 79,686. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. MATHEWS, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Fishing-Reels, of which the following is a specification.

The invention relates to improvements in fish-line reels, and particularly to an attachment therefor, although the structure might be made an integral part of the reel at the time of its manufacture.

The object of the invention is to provide a satisfactory controlling device for a reel which will assist in the proper guiding and even winding of the line upon the same and will in operation prevent any backlashing when the pole and line are manipulated in the usual manner for casting.

Further minor objects will definitely and clearly appear in the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in this specification.

The invention is clearly defined and pointed out in the claims.

A structure fully embodying the features of my invention is clearly illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a detail transverse sectional view of a fish-reel with my improvement or attachment in position, the same being taken on a line corresponding to line 1 1 of Fig. 2. Fig. 2 is a plan view of the fish-reel and device appearing in Fig. 1. Fig. 3 is a detail perspective view of my improvement as an attachment for fish-reels in common use. Fig. 4 is a longitudinal detail sectional view of the pressure-roller and its bearings, taken on a line corresponding to line 4 4 of Fig. 3.

In the drawings all of the sectional views are taken looking in the direction of the little arrows at the ends of the section-lines, and similar letters of reference refer to similar parts throughout the several views.

Referring to the lettered parts of the drawings, the fish-reel is provided with any usual or satisfactory means for attaching to the rod and consists of the side plates A A', one of

which contains the driving mechanism, the sides being connected together by the usual pillars B B B in the usual manner, and the reel, consisting of the shaft C and end plates, revolves within the same.

To one of the pillars B, preferably the center one, I hinge the main frame D of my device, the same being hinged thereto by extensions D, turned into lips. I provide coiled spring *r*, which engages the pillar B, a lip *r'* at the center engaging a set-screw G' on the collar G and the ends *r'* projecting to engage the frame D, whereby a light spring-pressure, easily controlled by the adjustment of the collar G, is provided for the same. The free end of the frame is curved downward and has side plates D' formed therefrom by a suitable stamping or other process. Through these side plates D' are perforations, into which I fit cones F' F'', these cones being connected by a rod F, made integral with the cone F' and screw-threaded to enter the screw-threaded hole in the cone F'', whereby the same are radially adjustable to and from each other and are securely retained in position, both of the cones being flanged at their outer ends to engage the side plates D' and both being slotted to receive the screw-driver or otherwise constructed for proper turning of the same to adjust the cones to and from each other. These cones are very highly tempered and preferably case-hardened to make them very durable. Supported on these cone-bearings is a little cylinder E, the same being highly tempered and having its ends properly countersunk to receive the cone-bearings, and this cylinder is also preferably of highly-tempered steel and case-hardened. This feature of the tempering and case-hardening is mentioned because of its increase of durability and because the structure of the parts admits of its being done in a satisfactory manner. The structure would work all right of any suitable material, although, of course, if it is not tempered and case-hardened it will be less durable.

In use in casting the outer part of the frame D is smooth and in the right position to receive the thumb of the operator, who can thus apply additional tension to the roller and make it more effective as a brake and enables him to have complete control of the device

without bringing his thumb into contact with the wet line, and owing to the presence and position of the small roller E there would be no rubbing upon the line, but simply a roller
 5 contact, which would not wear or injure it. By applying a heavy pressure with the thumb at this point sufficient resistance can be offered to the movement of the line to hold any
 10 ordinary fish that would be likely to be captured. It would probably be impossible to prevent the big fish getting away, as usual. I desire to remark in this connection that the structure of this device can be considerably
 15 varied in its details. I show the same formed of sheet metal, which I believe to be the most practical for a device of this kind, but presume the same could be made of a casting. As I before remarked, I have shown the structure especially as an attachment for fish-line
 20 reels already in use. I desire to remark that it can be secured to any of the pillars of the reel. In some instances where other attachments are on the reel it may be necessary to have the roller extend forward of the pivotal
 25 attachment of the reel and pivot the same to the pillar toward the butt of the handle; but all of these changes are perfectly obvious.

Where the structure is made a part of the reel in the first place, its method of attachment could, of course, be infinitely varied.
 30 The spring-pressure device for the reel might be dispensed with after the operator had acquired proper skill in the application of his thumb to the frame, though I believe the
 35 spring device will always be found of very great advantage, as it will always then be in the proper position for use and will always supply a sufficient gentle pressure to the line on the reel to prevent backlashing.

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

1. An attachment for a fish-reel consisting of the frame D with bearings for embracing
 45 one of the pillars of the reel; a coiled spring

with adjusting-collar to be placed on the said pillar of the reel for applying regulated pressure to the frame D; side pieces D'' on the said frame; cone-bearings F', F'' with a screw-threaded connection between them for insertion
 50 through the perforations in the side pieces; and a roller, the ends of which are properly fitted to the cone-bearings and carried thereby in position to rest against the line wound upon the reel, all coacting substantially as described for the purpose specified.

2. An attachment for a fish-reel consisting of the frame D with bearings for embracing one of the pillars of the reel; side pieces D''
 60 on the said frame; cone-bearings F', F'' with a screw-threaded connection between them for insertion through the perforations in the side pieces; and a roller, the ends of which are properly fitted to the cone-bearings and
 65 carried thereby in position to rest against the line wound upon the reel, all coacting substantially as described for the purpose specified.

3. An attachment for a fish-reel consisting of a suitable frame pivotally connected to one of the pillars of the reel; a spring for applying pressure thereto; a roller carried by the said frame and adapted to rest against the
 70 line on the reel, coacting for the purpose specified.

4. The combination with a fish-line reel of a suitable frame having a roller adapted to rest against the line on the reel and a spring for exerting yielding pressure on the said
 80 frame.

5. The combination with a fish-line reel of a suitable frame having a roller adapted to rest against the line on the reel.

In witness whereof I have hereunto set my
 85 hand and seal in the presence of two witnesses.

GEORGE R. MATHEWS. [L. S.]

Witnesses:

ALICE E. HOUGHTON,
 D. E. WOOD.