A. O. ABBOTT, Jr.

FISHING REEL.

APPLICATION FILED MAR. 19, 1919.

1,353,816. Patented Sept. 28, 1920.

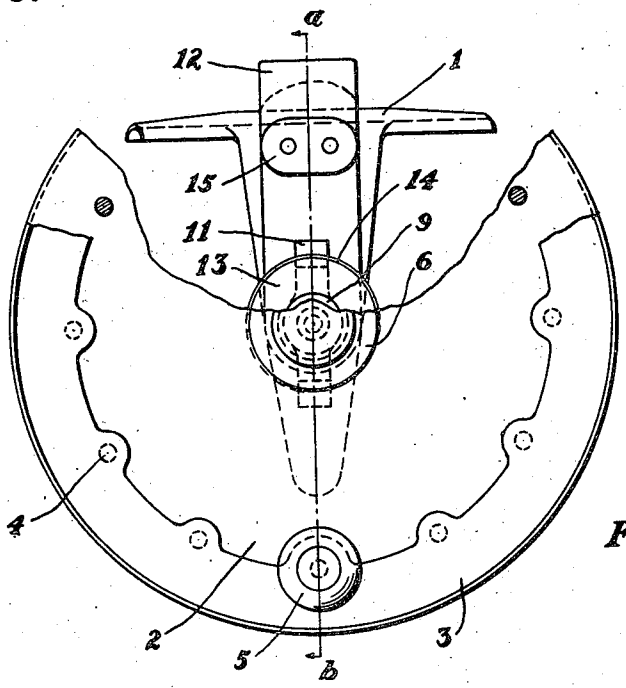


Fig. 1

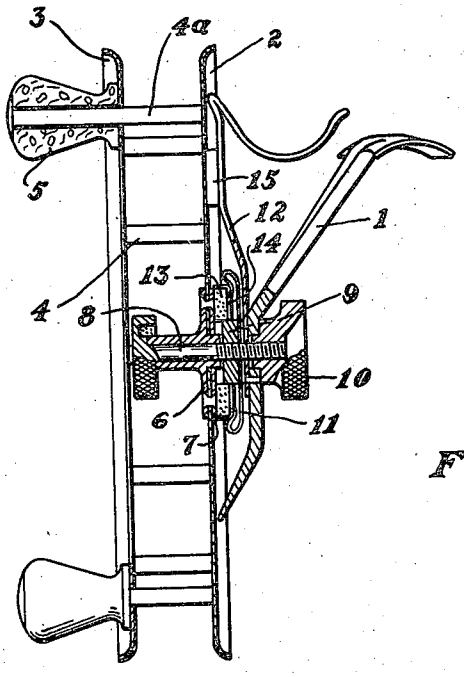


Fig. 2

INVENTOR

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ADRIAN O. ABBOTT, JR., OF DETROIT, MICHIGAN.

FISHING-REEL.

1,353,816. Specification of Letters Patent. Patented Sept. 28, 1920.

Application filed March 19, 1919. Serial No. 283,495.

To all whom it may concren:

Be it known that I, ADRIAN O. ABBOTT, Jr., a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Fishing-Reel, of which the following is a specification.

My invention relates to improvements in fishing reels used mainly for casting artificial baits; and the objects of my improvements are, first, to provide novel and convenient means for controlling the winding and paying off of the casting line; second, to prevent back-lash of the line when casting a bait; third, to provide a quick and convenient means for taking the reel apart; fourth, to provide extreme lightness and still retain the strength required in a reel of this class.

I attain these objects in the reel illustrated in the accompanying drawing, in which—

Figure 1 is a front elevation of the complete reel broken away to better show the parts at the back. Fig. 2 is a partial vertical section on the line *a b*.

The bracket 1 serves as a mounting for the reel and is provided with a seat for securing it to the casting rod in a well known manner. The reel part is made up of the flanged disk 2 and the flanged ring 3 connected by pins 4, preferably shouldered and riveted into the disk and ring respectively. Other pins 4ª are riveted into the disk 2, but pass snugly through the ring 3 and terminate in an extension upon which the handles for turning the reel are mounted. This arrangement of disk, ring, and pins, combines lightness and rigidity of construction in a novel way. The use of cork handles and aluminum in the other parts has given a satisfactory result. The use of two handles adds to the facility of handling and eliminates the need of a counter-balancing weight when one handle is used.

The disk 2 is secured between two flanges 6 and 7, the flange 6 terminating in a sleeve, preferably of hardened steel, which forms the bearing for the reel upon the spindle 8 of similar material. The spindle 8 has a threaded portion engaging the round nut 9 and the thumb nut 10 and passes freely through the springs 11 and 12, a thin washer between them, and the bracket 1.

The thumb nut 10 is provided with a shoulder which fits a hole in the bracket 1. The shouldered portion of the nut does not pass clear through the bracket, but enough clearance is allowed so that tightening the nut 10 secures the parts between it and the nut 9 in the relation shown.

Surrounding the nut 9 is a friction disk 13 composed preferably of oiled leather incased in a metal cup 14 to distribute the contact equally about the spindle. This disk and cup is maintained in central position by the nut 9 and is normally held in contact with the flange 7 by means of the spring 11 which terminates in the curved ends engaging in slots in the cup 14 to prevent rotation of the friction disk when the reel revolves. The friction may be varied at will by turning the knurled head of the spindle.

Another friction arrangement is provided in the shoe 15 on spring 12 which terminates in a loop into which the thumb of the operator fits while controlling his cast. This friction shoe is normally held in operative position against the disk 2.

It will be noted the top of spring 12 and the bottom end of bracket 1 pass behind the flanged-over portion of disk 2. This is a provision to keep the line from becoming wound up in the bearing in case it should be thrown over the side of the reel.

I am aware that reels of unusual diameter have been made and used to some advantage over the usual small spindle reel. These large reels all eliminate the necessity of fingering the line in order to distribute it evenly along the spindle when winding up the line to insure a clean cast. So important is this feature, alone, that numerous devices have been made to accomplish it. However, the reels of large diameter with which I am familiar have lacked the necessary flexibility required in casting light baits. This I attribute mainly to the inertia of the reel, mainly the outer portion. My construction overcomes this objection to a remarkable degree.

Another feature which I claim an advantage over the previous reels of large diameter, is the balance secured by lowering the spindle and placing the reel at the side where it is easily controlled without changing from one hand to the other, and

where the line may be led out over the top of the reel and thence through the loops in the casting rod.

It operates as follows:

Assuming the reel mounted ready for casting, the thumb of the hand holding the rod rests in the loop of the spring 12. When the rod is raised for a cast, the operator adds enough pressure against the shoe 15 to insure holding the bait against premature running out. He maintains this pressure until it is desirable to release it. This done, he allows the bait to run out, pulling only against the friction of the disk 13. When he desires to stop the bait he allows the spring 12 to apply friction by degrees determined by practice to bring the bait to a comparatively gentle stop. He then proceeds to wind in the line after having again released springs 12 so that the friction shoe 15 does not operate.

Enough friction is normally maintained by the bearing of shoe 15 against the disk 2 to hold the line from running out by the pull of any ordinary bait when the rod is laid in a horizontal position, thus doing away with a so-called drag or click which are usually employed on other reels for this purpose.

The function of the disk 13 might be briefly defined as imparting enough retarding action to the reel to overcome the initial velocity thereof imparted by the bait when released. The reel, if free to revolve at the velocity imparted to it as above mentioned, would pay off the line faster than the bait in its flight would take it up. A tangle of the line would result. The reel would tend to wind the line in a reverse direction causing a so-called back-lash.

I claim:

1. In a fishing reel, the combination of an offset bracket having a reel seat, a spindle mounted thereon, a reel mounted on the spindle, an annular friction disk mounted on the spindle and acting against one side of the reel, and a friction shoe actuated by a spring secured to the spindle on the same side of the reel.

2. In a bait casting device, the combination with a reel of a spindle, an adjustable spring-actuated friction disk on one side of the reel and concentric with the aforesaid spindle, and a brake shoe normally spring-pressed in contact with a portion of the reel outside of the friction disk and on the same side of the reel.

3. In a bait casting device, the combination with a reel, of a spindle, a brake shoe normally spring-pressed in contact with a portion of said reel, and a loop in the brake shoe spring convenient for the engagement of the thumb of the operator.

4. In a bait casting device, the combination with a reel, of a spindle, an adjustable spring-actuated friction disk on one side of the reel and concentric with the aforesaid spindle, and a brake shoe normally spring-pressed in contact with a portion of the reel outside of the friction disk and on the same side of the reel, the spring for actuating said shoe terminating in a loop convenient for engagement of the thumb of the operator.

5. In a bait casting device, the combination of a reel, a spindle therefor, a bracket for the spindle, a spring actuated friction shoe normally bearing on one side of the reel, and means on the friction shoe spring and the bracket to guard the line from becoming tangled in the spindle bearing of the reel when thrown off the reel on the side of said bracket and said friction shoe.

6. In a bait casting device, the combination of a reel, a spindle therefor, a flat spring mounted on the spindle and carrying a friction shoe adapted to bear against the reel, the free end of said spring terminating in a loop for the engagement of the thumb of the operator.

7. In a bait casting device, a reel, a spindle therefor, a friction disk mounted on the spindle and actuated by a spring to press it against the reel, an adjustment for the spring, a nut and lock nut for securing the spindle to an off-set bracket adapted to be fastened to a fishing rod, a flat spring secured between said nut and said lock nut and carrying a friction shoe normally held against the reel by said spring, and a loop in the spring, all substantially as described.

ADRIAN O. ABBOTT, JR.

Witnesses:
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MERRILL DAVIS.