No. 804,047. PATENTED NOV. 7, 1905.

E. D. ROCKWELL.

FISHING REEL.

APPLICATION FILED JULY 31, 1905.

Fig. 1

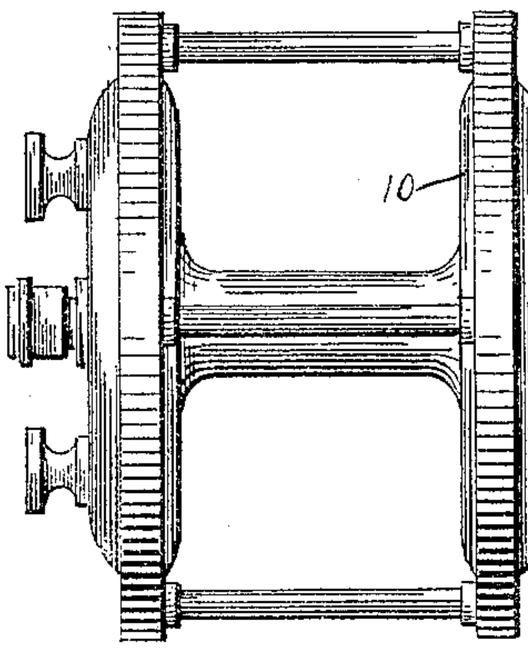


Fig. 2

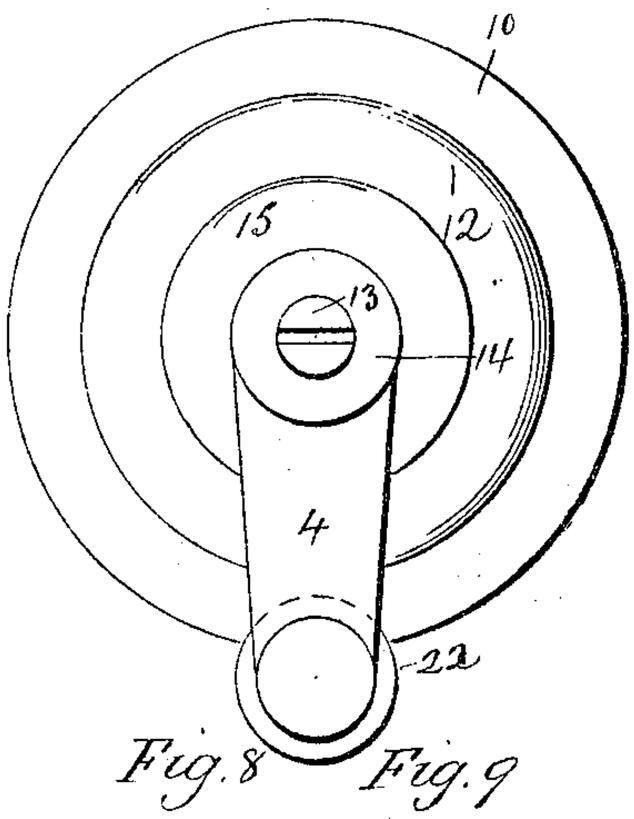


Fig. 3

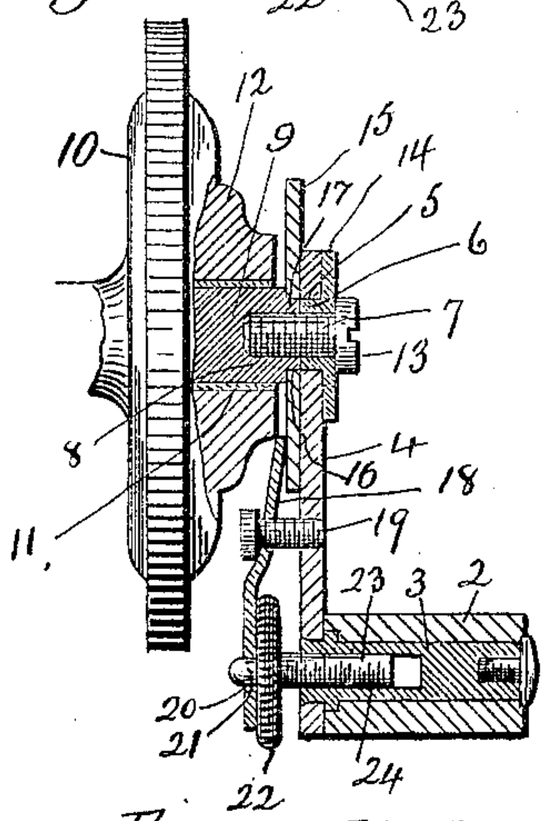


Fig. 8

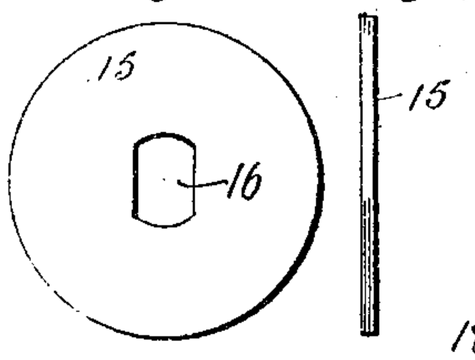


Fig. 9

Fig. 10

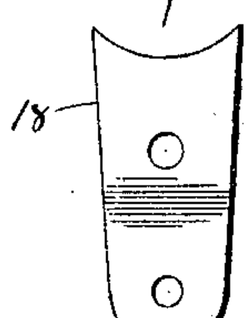


Fig. 11

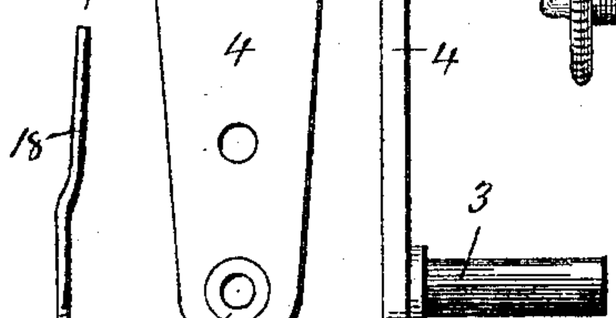


Fig. 4

Fig. 5

Fig. 6

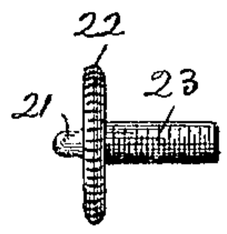
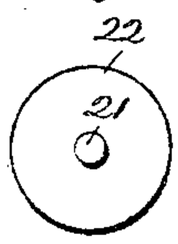


Fig. 7



Witnesses -
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Clara L. Reed.

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Inventor.
By Atty Seymour & Earle

UNITED STATES PATENT OFFICE.

EDWARD D. ROCKWELL, OF BRISTOL, CONNECTICUT, ASSIGNOR TO THE LIBERTY BELL CO., OF BRISTOL, CONNECTICUT, A CORPORATION.

FISHING-REEL.

No. 804,047. Specification of Letters Patent. Patented Nov. 7, 1905.

Application filed July 31, 1905. Serial No. 272,075.

To all whom it may concern:

Be it known that I, EDWARD D. ROCKWELL, a citizen of the United States, residing at Bristol, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Fishing-Reels; and I do hereby declare the following, when taken in connection with the accompanying drawings and the figures of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation of a reel constructed in accordance with my invention; Fig. 2, an end view thereof looking toward the handle; Fig. 3, a broken sectional view through the handle and the adjacent end of the reel; Fig. 4, a detached face view of the handle; Fig. 5, an edge view thereof; Fig. 6, a detached view, in side elevation, of the operating-button; Fig. 7, a face view thereof; Fig. 8, a detached plan view of the friction-disk; Fig. 9, an edge view thereof; Fig. 10, a detached plan view of the tilting friction-plate; Fig. 11, an edge view thereof.

My invention relates to an improvement in that class of fishing-reels having a friction-controlled spool, the object being to produce a convenient and effective reel whereby the tension upon the line may be regulated to the strain imposed upon it by the fish while the handle is being turned in the direction of reeling in the line without removing the thumb and fingers from the finger-piece of the handle.

With these ends in view my invention consists in a fishing-reel having certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In carrying out my invention as herein shown I employ a finger-piece 2, made of rubber or other suitable material and mounted so as to rotate freely upon a heavy stud 3, rigidly secured in the outer end of the handle-lever 4, the inner end of which is rounded and formed with a circular bearing-opening 5, adapting it to be swiveled upon a bearing-shoulder 6 on a washer 14 on a screw 7, entering a screw-hole 8 in the axle 9, upon which the spool 10 is mounted, the said axle running in a bushing 11 in the reel-head 12. At its outer end the screw 7 is furnished with a slotted head 13 and a knurled washer 14, corresponding in diameter to the curvature of the inner end of the handle-lever 4, which is thus connected with the axle 9, so as to be free to rotate independently thereof upon the bearing-shoulder 6 aforesaid. As a means of frictionally coupling the handle-lever with the axle 9 I employ a friction-disk 15, having an oblong square-sided opening 16, fitting over a hub 17 of corresponding cross-section at the outer end of the axle 9. The edge of the friction-disk 15 is gripped between the inner face of the handle-lever 4 and the inner end of a tilting friction-plate 18, rocking upon a screw-stud 19, entering the inner face of the lever 4 toward the outer end thereof. The outer end of the plate 18 is formed with a perforation 20 for the reception of a pin 21, located upon the outer face of a knurled operating-button 22, the threaded shank 23 of which enters a threaded opening 24 in the inner end of the stud 3. Under this arrangement the knurled operating-button 22 is concentric with the finger-piece 2, than which it is only a trifle larger in diameter. It will be apparent that by slipping the thumb and finger inward over the finger-piece 2 the button 22 may be engaged and turned in one direction or the other, as required for increasing or decreasing the tilt of the plate 18, and therefore increasing or decreasing its bite, so to speak, upon the friction-disk 15 and the amount of friction it imposes upon the rotation of the same, and hence of the reel.

In illustration of the use and operation of my improved reel let it be supposed that a fisherman has hooked a fish, which is pulling at the line. With his thumb and forefinger on the finger-piece he slides them inward into engagement with the button 22 and turns the same so as to tilt the plate 18 and secure a sufficient bite thereof upon the disk 15 to frictionally couple the handle-lever 4 with the axle 9, and hence with the reel 10. The fisherman meanwhile continues to turn the handle in the direction of reeling in. If the friction developed is greater than the pull of the fish, the line will be slowly reeled in, but if less the fish will reverse the spool and pull the line or run with the line, while the fisherman continues to turn the handle in the direction of reeling in. If the fish "lets up" for an instant, the spool will be picked up, so to speak, by the handle and the line reeled in to the extent of taking up the slack. Meanwhile the amount of friction required to play

the fish without giving him any slack line to utilize as a means of getting away will be regulated by the fisherman, who will speedily acquire the knack of operating the button 22 without removing his thumb and forefinger from the finger-piece 2. By means of my improved reel the fish is less likely to get away and there is less likelihood of breaking the line, because the coupling between the handle and the reel is a friction-coupling and yields to permit the spool to slip with reference to the handle.

It is apparent that in carrying out my invention some changes in the construction herein shown and described may be made. I would therefore have it understood that I do not limit myself thereto, but hold myself at liberty to make such departures therefrom as fairly fall within the spirit and scope of my invention.

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

1. In a fishing-reel, the combination with the spool and the axle thereof, of a handle having swivel connection with the said axle and comprising a lever and a finger-piece, and means for frictionally coupling the said handle and the axle including an operating-button arranged concentric with the said finger-piece and operable without removing the thumb and finger therefrom.

2. In a fishing-reel, the combination with the spool and the axle thereof, of a handle having swivel connection with the said axle and comprising a lever and a finger-piece, a friction-disk coupled with the axle for rotation therewith, a tilting friction-plate carried by the handle-lever and coacting at its inner end with the friction-disk and an operating-button arranged concentrically with the said finger-piece and operating to increase or decrease the bite of the friction-plate upon the friction-disk.

3. In a fishing-reel, the combination with the spool and axle thereof, of a handle having swivel connection with the said axle and comprising a lever and a finger-piece, a friction-disk coacting with the axle for rotation therewith, a tilting friction-plate carried by the handle-lever and coacting at its inner end with the friction-disk, and an operating-button arranged concentrically with the said finger-piece, having a stem entering the stud of the handle and coacting with the outer end of the friction-plate.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EDWARD D. ROCKWELL.

Witnesses:
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HOWARD S. PECK.