No. 715,076. Patented Dec. 2, 1902.

W. HORTON.

FISH LINE REEL.

(Application filed July 24, 1902.)

(No Model.)

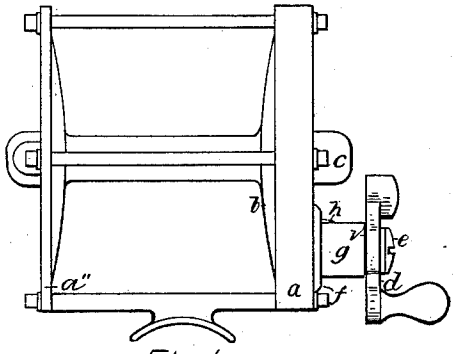


Fig. 1

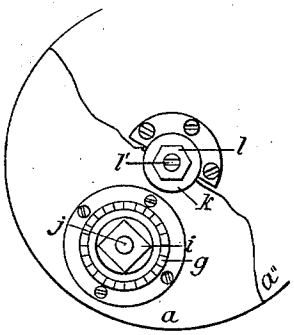


Fig. 2

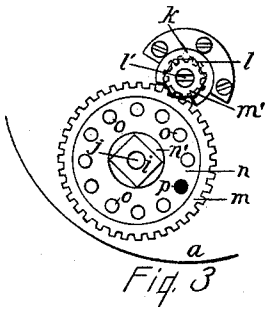


Fig. 3

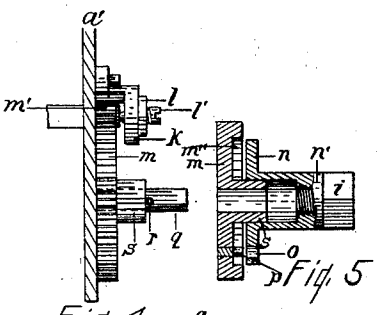


Fig. 4

Fig. 5

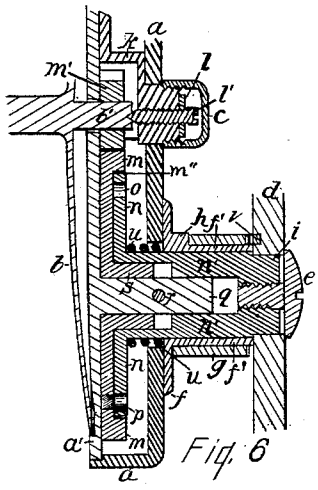


Fig. 6

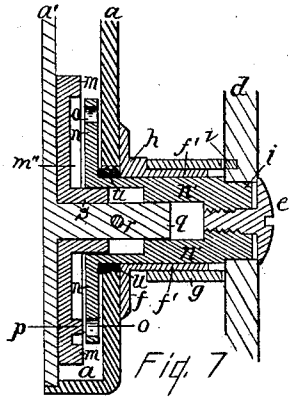


Fig. 7

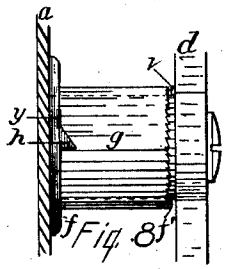


Fig. 8

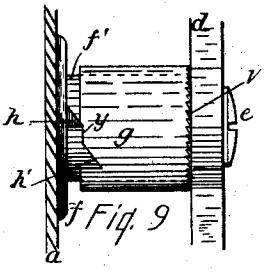


Fig. 9

Witnesses
Clifford Gallagher

Wright Horton Inventor

By Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WRIGHT HORTON, OF PEEKSKILL, NEW YORK.

FISH-LINE REEL.

SPECIFICATION forming part of Letters Patent No. 715,076, dated December 2, 1902.

Application filed July 24, 1902. Serial No. 116,780. (No model.)

To all whom it may concern:

Be it known that I, WRIGHT HORTON, a citizen of the United States, and a resident of Peekskill, in the county of Westchester and State of New York, have invented a certain new and useful Fishing-Line Reel, of which the following is a specification.

This invention relates to fish-line reels, and has for its object a ready means for releasing the line from the control of the handle and of quickly recovering control of the line without detriment to the gear-wheels that constitute a part of the reel construction. These objects are attained by the means set forth in these specifications and the accompanying drawings, which form a part thereof, and in which similar letters refer to like parts throughout the several views.

Figure 1 is a front elevation of a fishing-reel with my improvement attached. Fig. 2 is a partial view of the side of the reel to which my invention appertains, showing the handle and part of the outer casing removed. Fig. 3 is a side view of the gearing that operates the reel or drum. Fig. 4 is an end elevation of the gearing. Fig. 5 is a sectional view of the driving gear-wheel and its controller. Fig. 6 is a transverse section through the gearing and its inclosing casing, showing the parts in their normal positions; and Fig. 7 is a like view showing the parts in position for a free running out of the fishing-line. Fig. 8 illustrates the normal positions of the parts outside of the casing for releasing the gearing, and Fig. 9 illustrates the same parts in the position that releases the gearing.

As seen in Fig. 1, this reel differs only a little in outward appearance from any other. The gearing is inclosed within a casing a, which, as in Fig. 6, consists of two parts—a metallic inner head a' and the outer casing a, preferably of hard rubber or like material. The metallic head corresponds to the opposite head a'', Fig. 1, each of the heads supporting central pivotal bearings $k\,l\,l'$, Figs. 2, 3, 4, 6, for the spindle b' of the drum b. This spindle may have any form of bearing suitable to such purpose, including ball-bearings. A pinion m' is secured to the drum-spindle, and a driving-wheel m, having an extended hub s, is supported on a stud q, Figs. 4, 6, 7, and is held to its place against the head a' by a pin r through the stud. This wheel is also recessed, as at m'', Figs. 5, 6, 7, to receive a wheel n, Figs. 3, 5, 6, 7. This wheel n is provided with holes o, (shown in plan in Fig. 3,) that are adapted to receive a pin p, Figs. 3, 5, 6, 7. The wheel also has an extended hub n' and a squared end i to receive a crank or handle d, as in Figs. 3, 5, 6, 7. The hub n' has an inner bearing upon the hub s of the wheel m, and it may or may not have a bearing also on the extension of the stud q, as in Figs. 6, 7. It also has support in the sleeve f', that is affixed to the casing a, as in Figs. 6, 7, so that it is strongly supported to withstand the sudden jerks to which it is liable. When the wheels m and n are in place and the casing a, with the sleeve f' attached, is secured over them, a spring u, Fig. 6, thrusting against the wheel n and the bearing f', will keep the wheel n within the recess in the wheel m, the pin p engaging with any one of the holes o. The handle d being fastened to the hub n' by means of the screw e, the drum is ready for operation by means of the handle. To render the drum independent of action by the handle, a movable sleeve g, Figs. 6, 7, 8, 9, is placed on the fixed sleeve f'. Upon the fixed sleeve is a projection h, (shown in enlarged form in Figs. 8, 9,) one of its sides being an inclined plane. A notch h' in the movable sleeve is adapted to fit over this projection, as in Fig. 8. When it is desired to release the drum from the control of the handle, the sleeve g is turned with the fingers so that the notch and projection are disengaged, the parts assuming the positions shown in Fig. 9. The effect of this movement, as shown in Fig. 7, is to push the handle from its bearing against the end of the sleeve f, and in doing so the wheel n is drawn from its engagement with the wheel m. The drum b is then entirely free from control of the handle; but the gear-wheels $m\,m'$ are not disturbed in their relation to each other. The outer face of the sleeve g is serrated or notched, as most clearly shown in Figs. 2, 8, 9. A pin v is inserted in the handle, having just length enough to engage with the notches in the sleeve. A slight pressure of the handle toward the casing and a turning of the handle instantly dislodges the sleeve from its place on the projection h, and the spring u causes

the wheel n to engage with the wheel m. The holes o are made close together, so that the catching up of the line may be practically instantaneous. To quicken the movement, the sleeve is slightly cut away at y, Figs. 8, 9, so that the operator may not turn the sleeve g so far as to require a half (or maybe an entire) revolution of the handle to produce the dislodgment of the sleeve. The sleeve g fits somewhat loosely lengthwise, so that normally the pin v and the notches in the sleeve will not engage. The notches are exaggerated in size in the illustration. A mere milling of the edge will serve all requirements.

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

1. In a fishing-line reel the combination with the gearing thereof of a recess in the driving-wheel, a pin in said recess, a wheel mounted upon the axis of the driving-wheel adapted to fit in the recess in the driving-wheel and perforated to engage with the pin in said recess, the hub of the perforated wheel having a bearing in a fixed support on the casing, means at the end of the hub for the attachment of a handle, a spring to bear against the perforated wheel, a movable sleeve upon the fixed sleeve, a projection on the fixed sleeve and a corresponding notch in the movable sleeve, a serrated surface on the outer edge of the movable sleeve, a handle on the end of the hub of the perforated wheel and a pin in the handle, all substantially as herein set forth.

2. In a fishing-line reel in combination with a driving-gear-wheel-releasing mechanism substantially as described, adjusting means outside of the reel-casing comprising a fixed sleeve, a projection on said sleeve, and a movable sleeve on said fixed sleeve having a notch to engage with the said projection on the fixed sleeve, and a serrated edge next the handle, and a projection on the handle to engage with the said serrated edge, substantially as herein set forth.

3. In a fishing-line reel, in a gear-releasing mechanism, with outside means substantially as shown for operating the same, the driving-wheel running free of the handle, a wheel mounted on the axis of the driving-wheel and provided with perforations, a pin in the driving-wheel to engage with said perforations, and a spring bearing against the perforated wheel to keep it normally engaged with the driving-wheel, substantially as herein set forth.

Signed at Peekskill, in the county of Westchester and State of New York, this 19th day of July, A. D. 1902.

WRIGHT HORTON.

Witnesses:

CLIFFORD GALLAGER,

CYRUS W. HORTON, Jr.