

N° 17,501



A.D. 1891

Date of Application, 14th Oct., 1891

Complete Specification Left, 14th July, 1892—Accepted, 20th Aug., 1892

PROVISIONAL SPECIFICATION.

Improvements in Fishing Reels.

I, JOHN BROWN MOSCROP, of Platt Lane, Rusholme, Manchester, Lancashire, Engineer, do hereby declare the nature of my said invention to be as follows:—

These improvements refer more particularly to that class of fishing reel for which I obtained Letters Patent No. 2900 dated 27th February 1888 and Letters Patent No. 8122 dated 4th June 1888 and have for their object to render such reels much more efficient than heretofore.

Now this invention consists, first, in employing a screw threaded rod interposed within the lantern portion of the bobbin of the reel which extends from one wall of the bobbin to the other and is provided with a screw nut, which is prevented turning by one of its sides being shaped to the barrel of the reel, and surrounding such rod is a spiral spring which abuts against the screw nut at one end whilst its opposite end is shouldered down forming an extension, which passes through the wall of the bobbin and presses against the outer casing.

This screw threaded rod which is furnished with a suitable head or thumb piece on being turned causes the screw nut aforesaid to travel to or fro and thereby increase or diminish the pressure of the spring against the outer casing and in this way a convenient means is obtained of creating a drag on the bobbin and of adjusting the degree of such drag to the greatest nicety.

Secondly these improvements consist in reversing the order of the ratchet mechanism so that the pawl is on the reel and the ratchet mechanism on the outer casing instead of *vice versa* as heretofore thereby enabling me to dispense with the old form of spring and to more effectually attach the pawl in position,—this attaching being effected by means of a wire first coiled round one of the lantern rods of the reel and then passed through the next lantern rod—which is formed hollow—and coming out at the opposite end of such rod is finally fastened to the pawl, which wire it must be observed not only serves to attach the pawl but also acts as a spring to hold the same in a central position.

Thirdly, these improvements consist in forming the walls of the reel square instead of convex as heretofore and recessing the centre portion so as to leave room for the ratchet mechanism thereby giving greater strength and rigidity to the structure besides making it easier to produce.

Fourthly, these improvements consist in means of securing the handle of the reel by employing a hollow stud fastened to the reel side by a rivet which is provided with a loose sleeve or ferrule and onto which loose ferrule is glued or cemented the ordinary vulcanite handle and in this way such handle is more securely attached to the reel than heretofore and is free to revolve in the ordinary manner.

Lastly, my improvements consist in means of securing the reel on its central axis by employing a U shaped spring inserted within such axis the respective extremities of which spring are bent outwards and enter small holes in the walls of the hollow axis and passing through project beyond the outer surface thereof so that in placing the bobbin (which is slightly mouthed) in position the projecting extremities of the spring are first compressed but as soon as such bobbin is pushed home the said projections fly out and lock the bobbin in position. To remove the bobbin the two projections are compressed together between the finger and thumb and the bobbin pushed outwards.

The spring may be threaded through a disc or plate outside the reel casing and

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the entrance of the hollow axis may be formed with notches to prevent the spring getting out of place.

Dated this 13th day of October 1891:

JOHN G. WILSON,
Agent for the Applicant.

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COMPLETE SPECIFICATION.

Improvements in Fishing Reels.

I, JOHN BROWN MOSCROP of Platt Lane, Rusholme, Manchester, Lancashire, do hereby declare the nature of my said invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

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These improvements refer more particularly to that class of fishing reel for which I obtained Letters Patent No. 2900 dated 27th February 1888 and Letters Patent No. 8122 dated 4th June 1888 and have for their object to render such reels more efficient than heretofore.

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My improvements consist essentially of novel means for creating a drag upon the reel bobbin; a re-arrangement of the ratchet mechanism, dispensing with the old circular form of spring; forming the sides of the reel square or rectangular to strengthen and to facilitate the making of the reel; securing the handle more effectually than heretofore and lastly, improved means for securing the reel to its axis.

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And in order that my improvements shall be more readily understood and carried into practical effect I may hereunto annexed a sheet of drawings and will now proceed to describe the same with the assistance of the various figures and letters of reference marked thereon.

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Figs. 1 and 2 are transverse sectional views of my improved fishing reel and Fig. 3 is a front sectional view.

To make the parts more clear I have shewn in Figs. 4 and 5 the bobbin and reel casing separate but it will be understood that when put together the parts occupy the position shewn in Fig. 1.

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Referring now to Fig. 1 and to the first part of my improvements A is a screw interposed between the lantern rods and barrel of the reel bobbin A' and extending through the two walls of the bobbin as illustrated. Upon this screw is mounted a nut B prevented turning round by one of its sides being shaped to the barrel of the bobbin and also mounted around such screw and between the nut B and the wall C is a spiral spring D. In my Provisional Specification I say such spiral spring is shouldered down and extends through the wall C and presses against the outer casing E but I have found that a flanged thimble or eyelet F is a much more convenient form of extension. Such eyelet under the action of the spring D bears against the outer wall E and thus creates a drag upon the bobbin. In order to adjust such drag to the required extent the screw A is turned by means of the thumb piece G causing the nut B to travel to or fro and increase or diminish the pressure of the spring upon the eyelet as desired.

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Referring to Figs. 2, 3, 6 and 7 and to the second and third parts of my improvements, H is the ratchet or toothed wheel and I the pawl or click, the former being arranged upon the side of the casing E and the latter attached to the bobbin of the reel as illustrated so that the pawl is on the reel and the ratchet mechanism on the outer casing instead of *vice versa* as heretofore thereby enabling me to dispense with the old form of spring and to more effectually attach the pawl in position. According to one modification the click or pawl is attached to the extremity of a wire J passing through the hollow lantern rod K and secured to the adjacent lantern rod L (see Figs. 6 and 7) the pawl being retained in a central position as illustrated under the torsional influence of the wire J. According to another modification such click or pawl is attached to the end of the wire M

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(see Figs. 2 and 3) which is cranked out at N and extends into the flexible coil of wire O part of which is wrapped around the rod P. The click or pawl in this case is held centrally by the coiled wire tending to straighten out after each depression of the cranked end of the wire M under the movement of the click when the reel is running.

In accordance with my further improvements the walls of the bobbin instead of being curved as heretofore are made square or rectangular as illustrated with the central portion recessed front and back and to allow room for the ratchet mechanism; this modified construction giving greater rigidity to the reel and enabling it also to be produced with less skill and trouble and consequently cheaper than heretofore.

Fig. 8 illustrates the means I employ for securing the handle to the reel; Q being a hollow stud surrounded by a loose sleeve R and rivetted to the bobbin side as illustrated.

The vulcanite handle S is forced on to the loose sleeve and thus the handle is effectually secured and is free to revolve in driving the reel. The hollow stud is formed in one with the outer band or ring T.

The last part of my improvements relating to means for securing the reel bobbin to its axis consists of a wire V bent U shape and threaded through holes in the disc W shewn detached in Figs. 9 and 10. In placing the device in position the two ends of the wire are passed through the hollow axis W¹ and the two extreme ends X X of the wire being cranked (as shewn) take into small holes in the sides of the hollow axis at Y. To facilitate the placing of the reel bobbin upon its axis the entrance of the barrel is slightly mouthed at Z so that in forcing it on to its axis the ends X X of the wire close inwardly until the bobbin is "home" when they rise in front of the bobbin as seen in Fig. 1 and firmly lock the bobbin on its axis.

In order to remove the bobbin the two projecting ends of the wire are compressed together between the finger and thumb nails and the bobbin is pushed outwards.

Having thus particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is,—

1. The improvements in fishing reels substantially as hereinbefore described and illustrated on the accompanying drawing.

2. In fishing reels the use and employment of the drag creating mechanism mounted and operating substantially as hereinbefore described and illustrated on the accompanying drawing in Figs. 1 and 4.

3. The methods of mounting the click or pawl as shewn and described with reference to Figs. 2, 3, 6 and 7 on the accompanying drawing.

4. For attaching the handle S to the reel bobbin the use and employment of the hollow stud and loose sleeve arranged and mounted substantially as set forth and illustrated.

5. For securing the reel bobbin upon its axis the use and employment of the U shaped wire device shewn in Figs. 1, 9 and 10 arranged and acting in the manner substantially as set forth.

Dated this 13th day of July 1892.

JOHN G. WILSON,
Patent Office, 55, Market Street, Manchester, Agent for the Applicant.

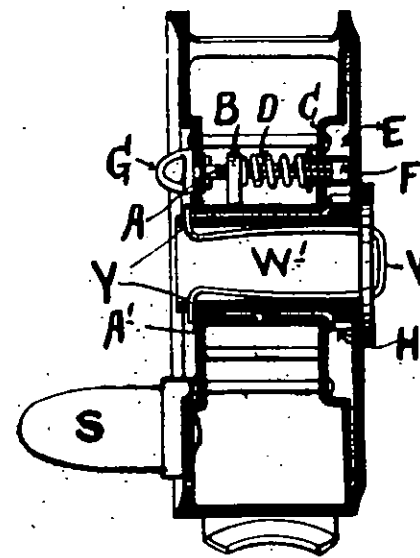


FIG. 1.

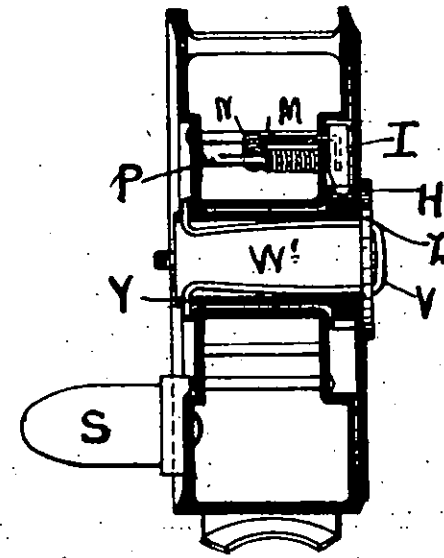


FIG. 2.

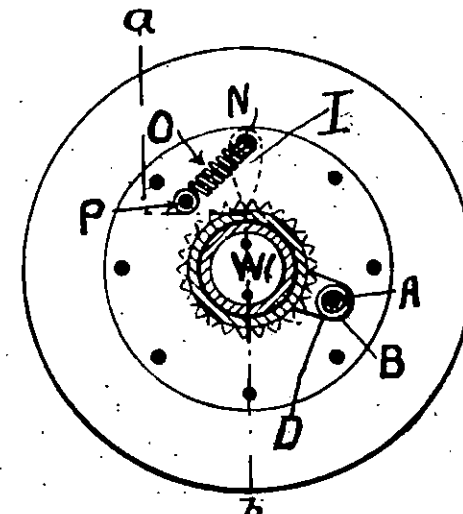


FIG. 3.

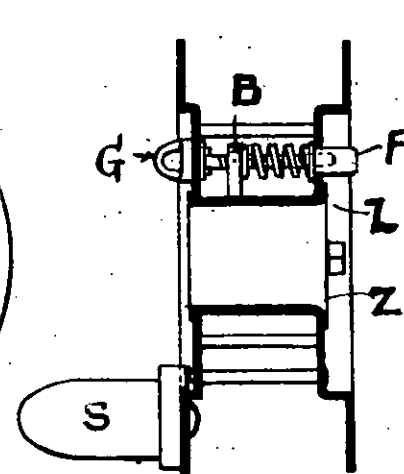


FIG. 4.

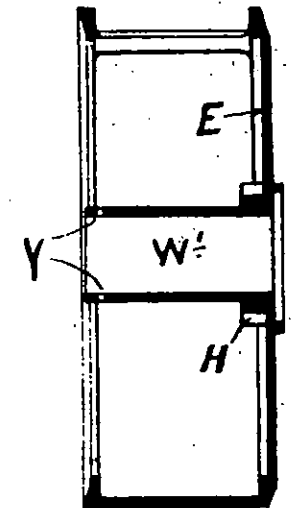


FIG. 5.

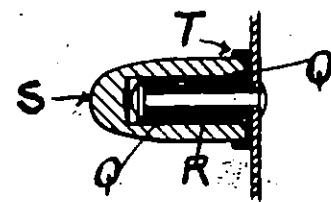


FIG. 8.

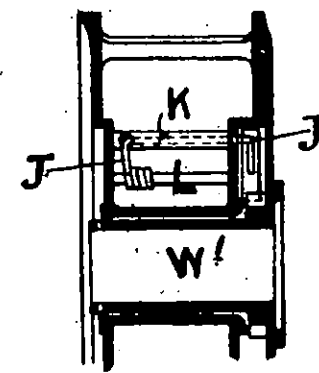


FIG. 6.

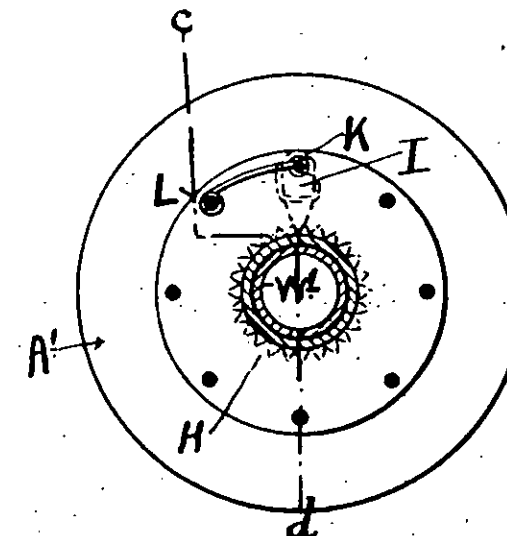


FIG. 7.

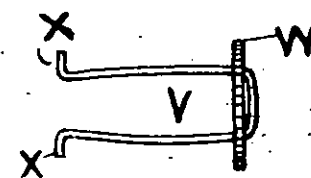


FIG. 9.

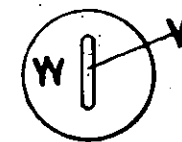


FIG. 10.

[This Drawing is a full-size reproduction of the Original.]