No. 781,776. PATENTED FEB. 7, 1905.

A. E. & W. H. LEAVER.

FISHING REEL.

APPLICATION FILED JAN. 25, 1904.

Fig. 1.

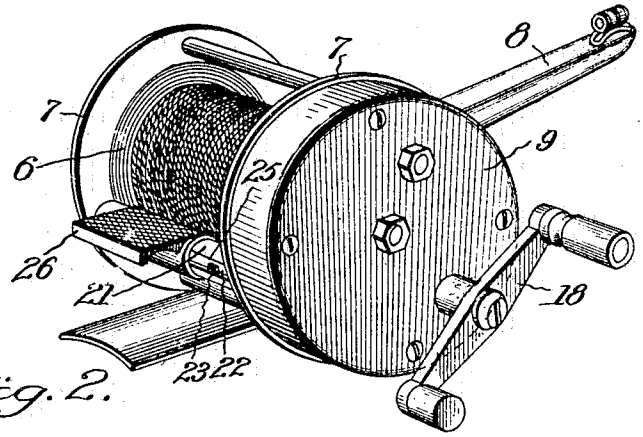


Fig. 2.

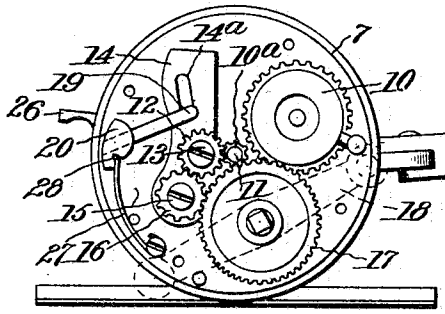


Fig. 3.

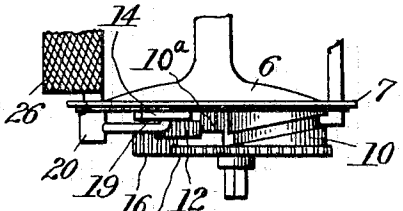
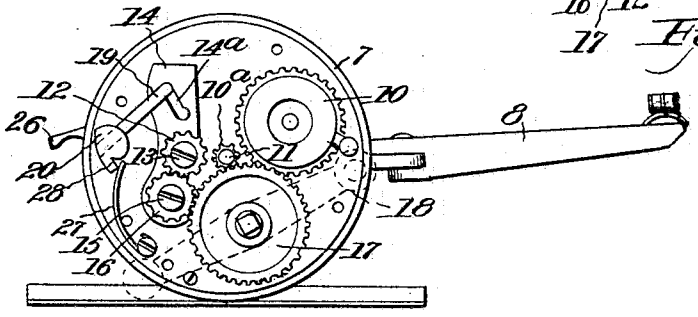


Fig. 4.



WITNESSES:

C. H. Walker

Geo. E. Tew.

INVENTORS

Albert E. Leaver

William H. Leaver

By

Miller B. Stevens & Co

Attorneys.

No. 781,776. Patented February 7, 1905.

UNITED STATES PATENT OFFICE.

ALBERT E. LEAVER AND WILLIAM H. LEAVER, OF CHICAGO, ILLINOIS.

FISHING-REEL.

SPECIFICATION forming part of Letters Patent No. 781,776, dated February 7, 1905.

Application filed January 25, 1904. Serial No. 190,540.

To all whom it may concern:

Be it known that we, ALBERT E. LEAVER and WILLIAM H. LEAVER, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Fishing-Reels, of which the following is a specification.

This invention relates particularly to mechanism for throwing the reel proper of a fishing-reel out of gear with the winding-crank or the pinions actuated thereby, and has for its object to produce an improved mechanism for this purpose, as will more fully hereinafter appear.

In the accompanying drawings, wherein the invention is illustrated, Figure 1 is a perspective view of the device. Fig. 2 is a side elevation with the cap or casing which incloses the winding-gear removed, the winding-gear being in engagement. Fig. 3 is a similar view with the winding-gear disengaged. Fig. 4 is a detail in edge view of the gearing.

Referring particularly to the drawings, common parts of an ordinary fishing-reel, which require no extended description, are indicated as follows: 6 is the reel proper, mounted to rotate between the side plates 7 of the frame. 8 is the guiding-arm for the line. 9 is the cap or casing which incloses the gear-wheels of the winding mechanism, and 10 is the cam-wheel for operating the guiding-arm 8.

The parts of the device specifically included in our invention are indicated as follows: 10^a is a pinion fast upon the spindle 11 of the reel. This pinion is in mesh with a pinion 12, which is rotatable on a screw-stud 13, by which said pinion is supported on a swinging plate 14. This plate is pivoted by a screw-stud 15 upon the side plate 7, and said stud also forms the spindle of a pinion 16, which is in mesh with the pinion 12 and also with a spur-wheel 17, which is fast on the shaft of the winding-crank 18, said shaft being extended through the cap in the ordinary manner. In the free end of the plate 14 is a curved slot 14^a, which receives the end of a finger 19, projecting from a block 20. This block is fixed to a stud or projection which extends through the side plate 7 from a sleeve 21, which is sleeved over one of the brace-rods 22, which space and hold the side plates 7 of the frame. Said sleeve has a limited turning movement on the rod, the extent of such movement being limited by a pin 23, which projects from the rod 24 into a slot 25, produced in the sleeve. Said sleeve is also provided with a wing or thumb-piece 26, whereby it may be turned by the pressure thereon of the operator's thumb. The spring 27, fixed at one end to the side plate and bearing at its free end in a notch 28 in the block 20, acts to normally lift the thumb-piece and throw the plate 14 so that the gears 10^a and 12 are in mesh.

In use the gears are normally in engagement by reason of the spring, as above stated. When it is desired to throw the reel out of gear, as in casting, the thumb-piece is pressed with sufficient force to turn the sleeve, which causes the end of the finger 19 to travel in the curved slot 14^a and causes the plate 14 to swing on its pivot, disengaging the pinions 10^a and 12, as indicated in Fig. 3. The wheel will then run free, in which connection it is to be noticed that the position of the thumb-piece is such that the thumb may be readily pressed on the line to act as a brake when desired.

The construction whereby the movement of the plate 14 is effected is simple and not apt to get out of order and acts quickly to produce the result desired. It can be manipulated entirely with one hand and forms a very serviceable device for the purpose intended.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a reel-pinion, and a winding-crank, of a swinging slotted plate, a pinion thereon meshing with the reel-pinion and geared to the crank, and a thumb-piece having a finger extending into the slot and movable to swing the plate to disengage the pinions.

2. The combination with a frame having

side plates, of a reel-pinion, a slotted plate pivoted to one of the side plates, a winding-crank, a train of pinions between the crank and the reel-pinion, one of said train being mounted on the plate to swing therewith to disengage the pinions, and a turning thumb-piece located between the plates and having a finger extending into the slot of the plate.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ALBERT E. LEAVER.
WILLIAM H. LEAVER.

Witnesses:
SIGNA FELTSKOG,
H. G. BATCHELOR.