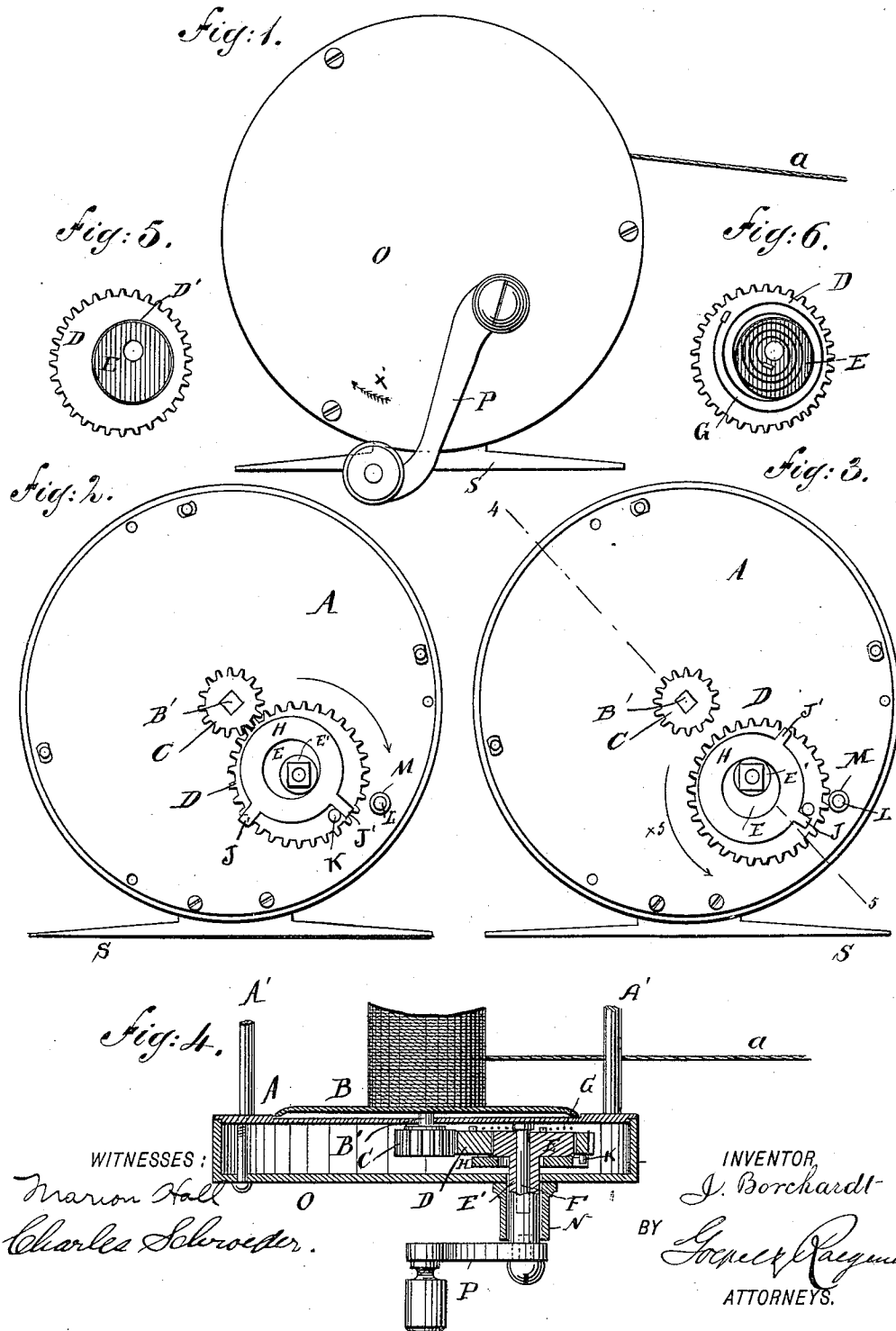


(No Model.)

J. BORCHARDT.
FISHING REEL.

No. 481,743.

Patented Aug. 30, 1892.



UNITED STATES PATENT OFFICE.

JOHN BORCHARDT, OF JERSEY CITY, NEW JERSEY.

FISHING-REEL.

SPECIFICATION forming part of Letters Patent No. 481,743, dated August 30, 1892.

Application filed March 23, 1892. Serial No. 426,171. (No model.)

To all whom it may concern:

Be it known that I, JOHN BORCHARDT, a citizen of the United States, and a resident of Jersey City, in the county of Hudson, State of New Jersey, have invented certain new and useful Improvements in Fishing-Reels, of which the following is a specification.

This invention relates to fishing-reels; and the object of my invention is to provide a new and improved reel which is so constructed that as soon as the handle is released the drum or reel proper is automatically disengaged from the gearing connected with the handle, thus permitting the line to unwind very freely and without turning the handle or operating the gear.

The invention consists in the combination, with a drum and a pinion fixed on the axle of the same, of a cog-wheel adapted to engage said pinion and having an eccentric opening, in which a disk fits that has an eccentric projection, on the end of which the handle is fastened.

The invention also consists in the construction and combination of parts and details, which will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of my improved reel. Figs. 2 and 3 are side views, the covering-plate being removed and the gearing shown in different positions. Fig. 4 is a sectional view of one end part of the reel on the line 4 5, Fig. 3. Fig. 5 is a view of the opposite face of the same.

Similar letters of reference indicate corresponding parts.

The reel is constructed in the usual manner with two end plates A, of which only one is shown, and said end plates are connected by rods A'. The shaft B', on which the drum B or reel proper is fixed, is mounted centrally to rotate in said plates A. A pinion C is fixed on one end of said shaft outside of one plate A and can engage the cog-wheel D, which is provided with an eccentric aperture D' for receiving the disk E, having the eccentric sleeve E', which is mounted on the fixed pin F, projecting from the plate A, and on which pin said sleeve can turn. A spiral spring G has one end secured to the under side of the cog-wheel D and the other end to the disk E,

which spring tends to hold the cog-wheel D eccentrically to the sleeve E'. On the upper surface of the disk E a flat ring H is secured eccentrically to the sleeve E' and is provided with the two radially-projecting arms or wings J J', that can strike against the stop-pin K on the upper surface of the wheel D. A stop-pin L on the plate A has a covering-sleeve M, of soft rubber or analogous material. The sleeve E is mounted to turn in a bushing or neck N of the cover-plate O, secured on the plate A, and the handle P is secured on the outer end of said sleeve. S is the plate for fastening the reel on the plate.

The operation is as follows: Normally the pinion C and cog-wheel D are out of engagement, as shown in Fig. 3, and the drum or reel B is entirely free to revolve in casting a line, &c., the wheel D resting against the stop L. The spring G and the handle P tend to hold the wheel D in the position shown in Fig. 5. When the line is to be wound up, the handle P is turned in the direction of the arrow x', Fig. 1, whereby the disk E is turned and brings the wheel D into a position concentric with the sleeve E' and engages said wheel D with the pinion. The wing or arm J' rests against the pin K, and the drum B is turned so as to wind up the line a. As soon as the handle is released, the spring G turns the wheel D in the inverse direction of that in which it was turned by the crank and brings it out of engagement with the pinion E and eccentrically to the sleeve E'. The drum is released and can rotate freely as the line is unwound. As the wheel D rests against the stop L and the arm or wing J rests against the pin K, the stop L prevents the turning of the crank and gearing in the inverse direction.

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

1. In a fishing-reel, the combination, with a casing, of a drum, a pinion fixed on the axle of the drum, a cog-wheel adapted to engage said pinion and having an eccentric opening, a disk in said opening, a tubular projection on said disk, which projection is eccentric to the disk, a handle connected with said projection, and a pin on the casing passing through

said tubular projection, arms on said disk, and a pin on said cog-wheel, substantially as set forth.

2. In a fishing-reel, the combination, with
5 a casing, of a drum in the same, a pinion on the axle of the drum, a cog-wheel having an eccentric opening, a disk within said opening and mounted eccentrally on a pin of the casing, a spiral spring attached to the cog-
10 wheel and said disk, arms on the disk, and a

pin on the cog-wheel, which pin is encountered by the said arms, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOHN BORCHARDT.

Witnesses:

OSCAR F. GUNZ,
CHARLES SCHROEDER.