(No Model.)

S. GRAY.

FISHING REEL.

No. 549,914. Patented Nov. 19, 1895.

Fig. 1.

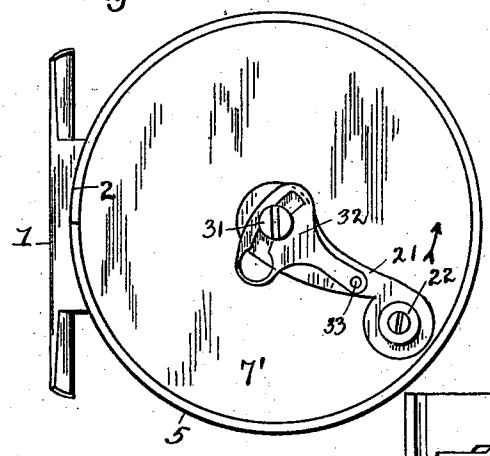


Fig. 2.

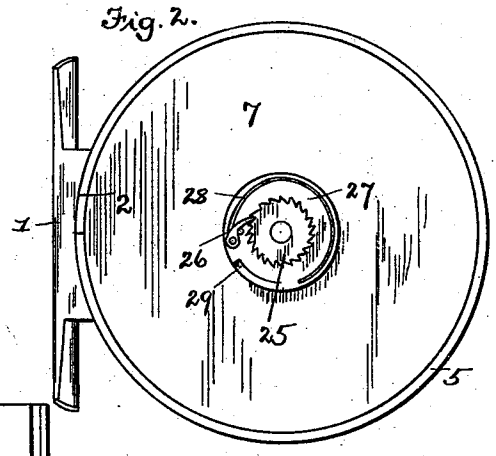
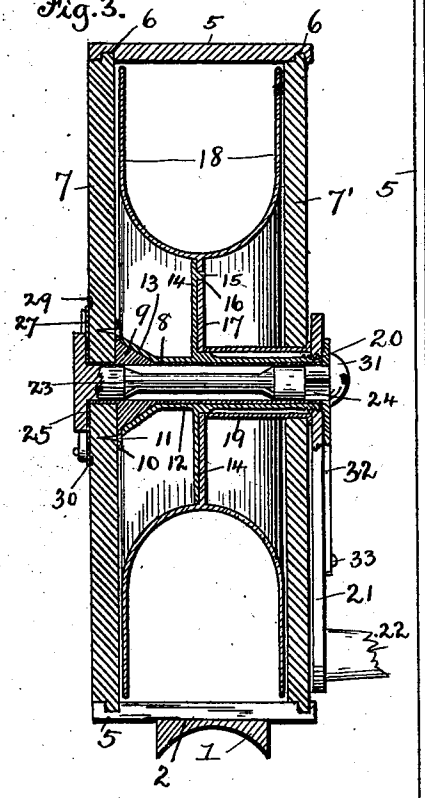
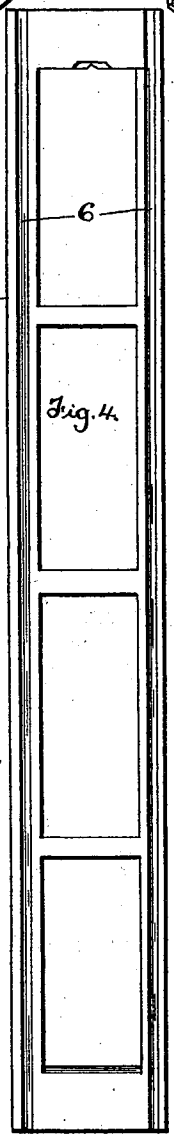


Fig. 3.





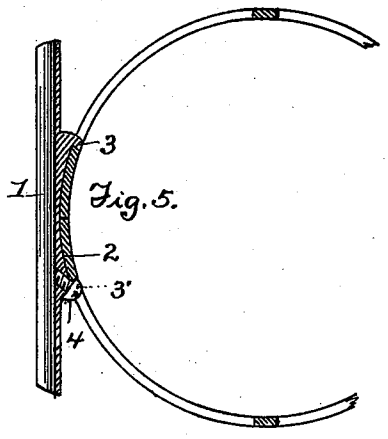
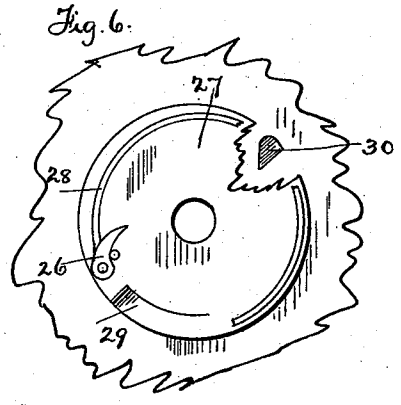


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL GRAY, OF HARRISBURG, PENNSYLVANIA.

FISHING-REEL.

SPECIFICATION forming part of Letters Patent No. 549,914, dated November 19, 1895.

Application filed March 18, 1895. Serial No. 542,207. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL GRAY, a citizen of the United States, residing at Harrisburg, Dauphin county, Pennsylvania, have invented certain new and useful Improvements in Reels for Fishing-Rods and other Purposes, of which the following is a specification, reference being had therein to the accompanying drawings.

This improvement relates to that class of reels designed to be attached to fishing-rods, but may be used for other purposes; and the invention consists in the peculiar construction, arrangement, and combinations of parts hereinafter more particularly described and then definitely claimed.

In the accompanying drawings, Figure is a front elevation of a reel constructed according to my improvement. Fig. 2 is a rear view of the same. Fig. 3 is a vertical central section of the same. Fig. 4 is a plan of a blank for making the drum. Fig. 5 is a longitudinal section of the clamp for attaching the reel and for holding the parts of the drum together. Fig. 6 is a detail on a larger scale, which will be more fully described hereinafter.

Referring now to the details of the drawings by figures, 1 represents a clamp having a curved seat 2, lugs 3 3′, and screw 4. At 5 is shown the periphery of the drum, which is formed from a single perforated strip of metal, preferably of the shape shown in Fig. 4, and when bent into circular form and set in the seat is held there by the lug 3 and screw 4, one of the lugs being undercut to catch over the metal near one end of the perforated strip, which metal is correspondingly shaped to form a good hold for the lug, and the head of the screw 4 bearing on an inclined notch near the other end of said perforated strip, by which means the clamp and strip may be easily put together or separated.

In the edges of the blank are formed grooves 6, which receive the back and front plates of the drum, (indicated by 7 7′,) respectively.

In the back 7 of the drum is set a hollow standard 8, having a cone 9 near one end and a flange 10, which is secured by screws 11, passing through said flange into the back 7.

Upon this standard runs a sleeve 12, having at one end a hollow cone 13 to fit the cone 9 and near its center a disk 14, carrying a pin 15, which engages in a hole 16, formed in the central web 17 of the spool 18. In front of the web 17 is a thimble 19, which projects through the plate 7′.

The small end of the sleeve is provided with a thread 20 to receive the crank-arm 21, which is screwed thereon and is provided with a handle 22, by which to turn the same.

Inside the hollow standard is a spindle 23, having one end squared or flattened at the sides, as shown at 24, and its other end carries a ratchet-wheel 25, into which engages a pawl 26, carried by the washer 27, which washer carries a spring 28, that keeps the pawl 26 in engagement with the ratchet-wheel 25. A part of this washer is cut out and bent inward, as shown, to form a spring-pawl 29, that engages in notches 30, cut in the plate 7 of the drum, as shown in the detail, Fig. 6, in which part of the washer is represented as broken away, the better to show the notches.

The spindle 23 has at its square or flattened end a screw 31, set into a threaded hole formed in said end. The head of this screw bears on a slotted spring tension-plate 32, pivoted at 33 on the crank-arm 21 so as to swing on said pivot. This tension-plate tends to draw the spindle 23 through the standard 8; but it is prevented by the ratchet-wheel 25, which thus forms a stop to its movement in that direction. When the tension-plate is in the position shown, its resiliency causes friction between the parts, and thus the free turning of the spool is prevented. If the tension-plate is moved to the right until the round part of the slot is brought concentric with the screw, the friction is relieved, and if it is desired to remove the handle and crank-arm it can be done by pressing on the spool to prevent its turning and then revolving the handle in the direction shown by the arrow, which will unscrew the crank-arm, and it can then be readily removed, as the screw-head will pass through the round part of the slot; but when the tension-plate is turned to the position shown in the drawings the head of the screw prevents the removal of the crank-arm, so that said tension-plate not only serves to create friction, but also as a keeper for said crank-arm.

From the above description it will be seen

that I have invented a reel that will be strong, easily made, readily separable and put together again, and durable and convenient in use.

I do not wish to limit myself to the exact construction shown, as it may be changed somewhat without departing from the spirit of my invention. For instance, instead of the screw shown for securing the ends of the perforated strip, some other known mechanical means may be adapted for this purpose, and instead of forming one of the springs on the washer 27 integral with said washer an additional separate spring may be secured to the washer.

What I claim as new is—

1. In a reel, the combination with the case thereof, having notches in one of its sides and a plate provided with a spring pawl engaging with said notches, of a spool provided with a ratchet-wheel, and a pawl pivoted on said plate and engaging with the teeth of the ratchet-wheel, substantially as described.

2. In a reel, the combination with a spindle having a stop at one end and a spool, of a sleeve carrying the spool and surrounding said spindle, a crank-arm attached to said sleeve, a slotted tension plate on said crank-arm and acting to draw the stop toward one side of the drum of the reel, substantially as described.

3. The combination with the reel drum, of the hollow standard 8 fast in said drum, the sleeve 12 running on said standard, the spool 18 carried by said sleeve, the spindle 23 running in the hollow standard, the ratchet-wheel 25, a pawl 26 engaging therewith, the washer 27 carrying the pawl 26 and a spring pawl 29 engaging in notches in the drum, a crank-arm 21 screwed on the sleeve 12, a slotted spring tension plate 32 pivoted on the crank-arm, and a screw 21 against which the tension plate acts, all substantially as described and shown.

4. The combination of a circular perforated strip forming the periphery of the drum casing, a clamp having lugs projecting into the perforations in the strip, and means substantially as described for securing the strip in the clamp or reel seat, as set forth.

5. The combination of the circular perforated strip 5, forming the outer edge of the drum casing having grooves 6, the side plates 7, 7′ entering said grooves, the clamp 1 having lugs 3, 3′, entering the perforations in the strip, and the screw 4 bearing on the edge of one of the perforations, substantially as described.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 13th day of March, 1895.

SAMUEL GRAY.

Witnesses:
A. E. BRANDT,
J. M. SMALL.