No. 778,368. PATENTED DEC. 27, 1904.

A. F. MEISSELBACH & W. MEISSELBACH, Jr.

FISHING REEL.

APPLICATION FILED MAY 7, 1904.

Fig. 2.

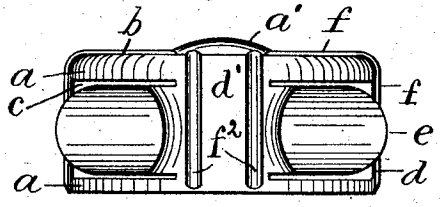


Fig. 1.

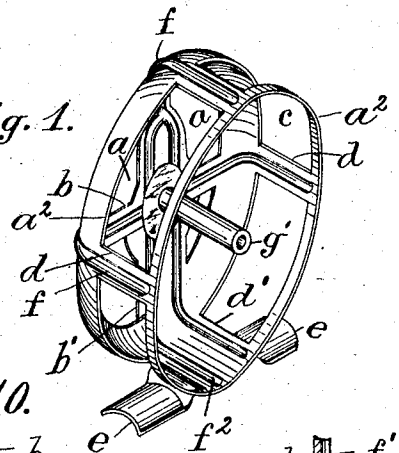


Fig. 10.

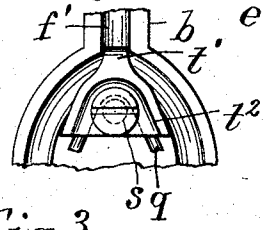


Fig. 5.

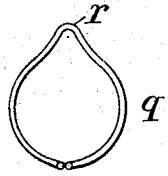


Fig. 11.

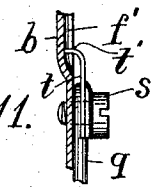


Fig. 7.

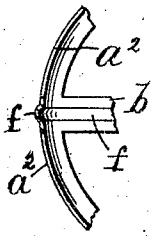


Fig. 3.

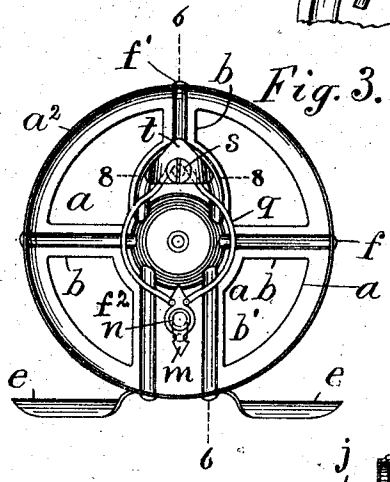


Fig. 4.

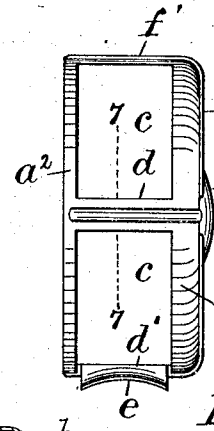


Fig. 12.

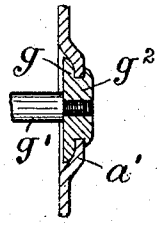


Fig. 9.



Fig. 8.

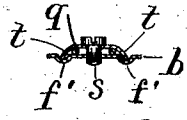
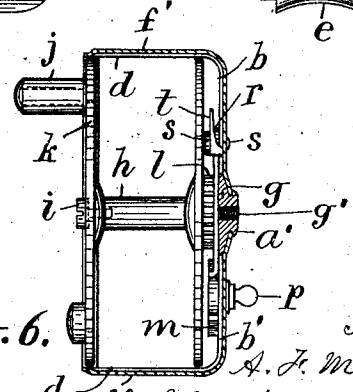


Fig. 6.



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Thomas S. Crane, Atty.

No. 778,368. Patented December 27, 1904.

UNITED STATES PATENT OFFICE.

AUGUST F. MEISSELBACH AND WILLIAM MEISSELBACH, JR., OF NEWARK, NEW JERSEY.

FISHING-REEL.

SPECIFICATION forming part of Letters Patent No. 778,368, dated December 27, 1904.

Application filed May 7, 1904. Serial No. 206,810.

To all whom it may concern:

Be it known that we, AUGUST F. MEISSELBACH and WILLIAM MEISSELBACH, Jr., citizens of the United States, and both residents of 26 Prospect street, Newark, county of Essex, State of New Jersey, (whose post-office address is also the same,) have invented certain new and useful Improvements in Fishing-Reels, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The present invention relates to that class of fish-reels in which the casing is formed with a head having a fixed stud to carry the reel and a shell with apertures forming guides to lead the line upon the spool.

In the present invention the casing may be made of cup shape, with a head and shell integral and continuous hollow ribs stamped upon the shell and head to stiffen the construction. The apertures cut in the shell to guide the fish-line form transverse bridges upon the shell, and the reel-plate is made integral with the shell by cutting and bending integral feet from the apertures at opposite sides of the bottom bridge to form the reel-plate. The shell and feet of the reel-plate are made entirely in one piece, and the reel-plate is incapable of becoming loose, as sometimes occurs when a separate reel-plate is fastened to the casing by screws or rivets. To fasten the stud for the spool securely in the head, the center of the head is thickened by stamping a boss outwardly at the center of the same and securing a filling-block within such boss. The rib extended across the upper bridge and into the top of the head is forked adjacent to the boss, and two ribs corresponding to the arms of such fork are extended downwardly from the boss across the bridge of the reel-plate. A flat space is thus left within the head above the boss to form a seat for securing the click-spring and a flat place below the boss for the mounting of the click. The spring for the click is made duplex, with its arms extended around the click-wheel and united in a loop which is disposed in the fork of the upper rib, where a screw is inserted into the head through the loop. A sheet-metal washer is clamped by the screw upon the loop and the edge of the washer bent to embrace the arms of the click-spring to hold them securely in an operative position. This construction is an improvement upon the means heretofore used by us for holding the two arms of the click-spring, as it avoids the use of pins fastened in the head of the reel to hold each arm separately in an operative position.

In the drawings, Figure 1 is a perspective view of the reel-casing. Fig. 2 is the bottom side of the same, showing the reel-plate. Fig. 3 is an elevation of the casing viewed from its open end. Fig. 4 is a side elevation of the casing. Fig. 5 shows the click-spring detached, and Fig. 6 is a vertical section on line 6 6 in Fig. 3. Fig. 7 shows a portion of the casing with the shell in section on line 7 7 in Fig. 4. Fig. 8 is a section through the head of the reel on line 8 8 in Fig. 3, showing the engagement of the washer with the arms of the spring; and Fig. 9 is a perspective view of the washer. Fig. 10 is a view, upon an exaggerated scale, of a spring-washer with curved flange; and Fig. 11 is an edge view of such spring-washer with one arm of the casing-head shown in section.

The circular head of the casing is formed with apertures a and arms b and b' and with boss a' at its center. The shell a^2 is shown with four apertures c, forming three narrow bridges d and a wider bridge d' at the bottom, to which the integral feet e of the reel-plate are attached, being cut and bent from the apertures c at opposite sides of the bridge d'. In manufacture the casing is drawn into cup shape from a flat sheet-metal blank and the several apertures then cut or punched in the head and shell. Hollow ribs f are extended along the side bridges of the shell and along the adjacent arms b upon the head to the boss a', thus stiffening such bridges and arms. The rib f' upon the upper bridge is extended along the upper arm b and forked as it approaches the boss a' to leave a central seat for the click-spring, and the arm b is widened next the boss to receive the branches of such rib. Two corresponding ribs f^2 are

extended along the lower wide arm b' and across the bottom bridge d' to stiffen the junction of the head with the reel-plate. The feet e of the reel-plate are curved transversely to fit the fishpole. A filling-block g is shown within the boss, where it is secured by a hub g^2, riveted on the outside of the boss. The shank of the stud g' is screwed in the block. The spool-hub h is secured movably upon the stud by screw i, and the hand-crank j projects from the flange k of the spool, which revolves in the open end of the casing. The click-wheel l is fixed upon the hub of the spool next the block g, and a double-ended click m is shown mounted upon the sliding stud n, which is fitted to a slot in the arm b between the grooves of the ribs f^2. The stud has the usual knob p upon its outer end to move the click into and out of the click-wheel. The duplex click-spring is shown with two arms q, which pass around the click-wheel and are joined in a loop r, fitted to a screw s, which is tapped into the head between the forked branches of the rib f'. Two constructions are shown for clamping the loop r of the spring to the head of the casing, the loop in one construction being held merely by the corners of a triangular washer and in the other construction by a recess stamped in the washer to fit the outer curve of the loop. Figs. 8 and 9 show a triangular washer t fitted beneath the head of the screw and two of its corners bent downwardly at opposite sides of the loop to press the outer sides of the spring-arms q toward the click. In Figs. 10 and 11 the washer t is shown with recess stamped to fit the outer curve of the loop, thus forming flanges t^2, which embrace the entire loop and hold the spring-arms in the desired manner. In Figs. 10 and 11 the washer is formed with a tongue t', which extends into the hollow of the rib f' upon the arm b above the boss a', thus holding the washer from turning and securing the fork of the spring firmly upon the flat space between the forked arms of the said rib.

All the details of this construction are readily made from wire and sheet metal by tools which accurately duplicate the parts, and the reels may thus be made cheaply, while they are durable and perfect in their operation.

Having thus set forth the nature of the invention, what is claimed herein is—

1. A fish-reel casing of sheet metal having integral shell and head, a boss a' stamped in the head, and the shell provided with bridges and apertures c between the bridges, a stud g' secured to the head, and hollow ribs stamped upon the shell in the bridges between the said apertures, and such ribs extended upon the head into the boss a' to unite with such boss in stiffening the head, substantially as shown and described.

2. A fish-reel casing of sheet metal in cup shape, having integral shell and head, a boss a' stamped in the head, and the shell formed with bridges d, d' and intervening apertures c, and ribs f, f' stamped in the bridges and extended along the head into the boss a', substantially as herein set forth.

3. A fish-reel casing of sheet metal in cup shape, having integral shell and head, a boss a' stamped in the head, and the shell formed with bridges d, d' and intervening apertures c, the top bridge having the rib f' forked upon the head with its branches extended to the boss, and the bottom bridge of the shell and the head between the same and the boss being provided with two corresponding ribs f^2.

4. A fish-reel casing of sheet metal in cup shape, having integral shell and head, a boss a' stamped in the head, a filling g secured within the boss, and a stud g' secured in such filling, substantially as herein set forth.

5. A fish-reel casing of sheet metal having a shell provided with the apertures c for the fish-line, and formed with an integral reel-plate having feet e, e' bent from two of such apertures and curved to fit a fishpole.

6. A fish-reel casing of sheet metal having integral shell and head, the shell provided with the apertures c for the fish-line, and formed with an integral reel-plate having feet e, e' bent from two of such apertures, and the head having hollow ribs f^2 stamped therein and extended across the bridge between the two feet of the reel-plate.

7. A fish-reel having a casing of sheet metal in cup shape with integral shell and head, a boss a' stamped in the head, a stud g' sustained by the boss, the spool thereon with click-wheel attached to the spool adjacent to the head, the shell provided with bridges d, d' and intervening apertures c, the top bridge and head having a hollow rib f' stamped therein and forked adjacent to the boss, with a seat for a spring-loop between the arms of the forked rib, a stud n fitted to slide in the reel-head and having a click m mounted thereon, a duplex wire spring having a loop r fitted to the seat between the arms of the forked rib, a washer t having a recess u fitted to embrace the loop of the spring, and a tongue t' fitted to the hollow of the rib f', and a screw s inserted through the washer t and loop r into the head, whereby the washer and spring are held from turning upon the seat, substantially as herein set forth.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

AUGUST F. MEISSELBACH.
WILLIAM MEISSELBACH, Jr.

Witnesses:
Wm. T. Friedel,
Thomas S. Crane.