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F. A. BASSETT

1,970,641

REEL FITTING

Filed April 15, 1933

Fig. 1.

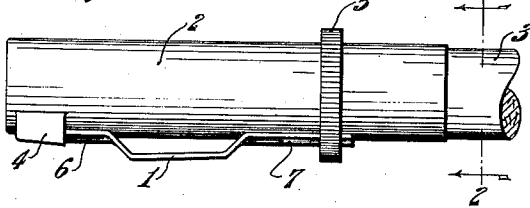


Fig. 2.

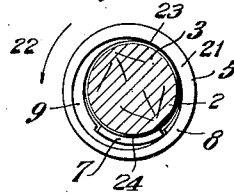


Fig. 3.

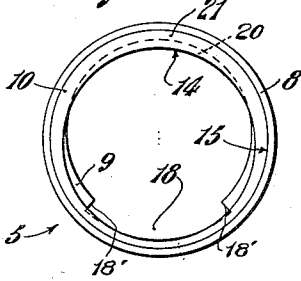


Fig. 4.

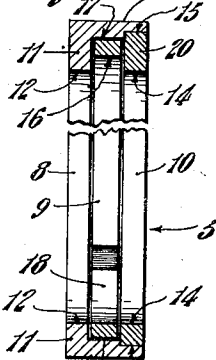


Fig. 5.

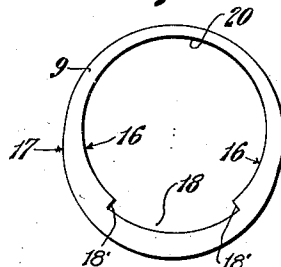


Fig. 6.

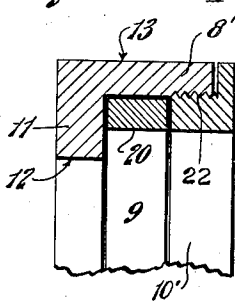


Fig. 9.

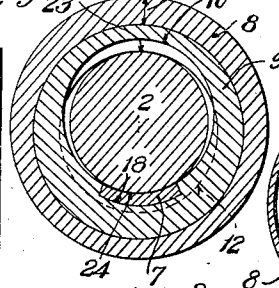


Fig. 7.

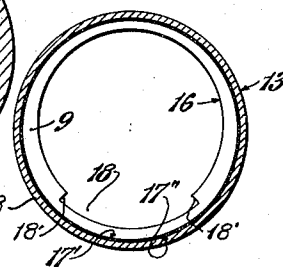


Fig. 10.

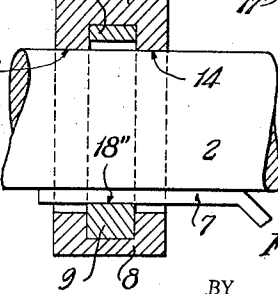
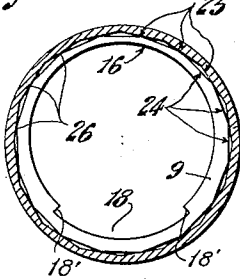


Fig. 8.



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UNITED STATES PATENT OFFICE

1,970,641

REEL FITTING

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Application April 15, 1933, Serial No. 666,317

8 Claims. (Cl. 43—22)

My invention relates to improvements in reel fittings, and more particularly to that part of the reel fitting designed as a lock, or retaining means, for securing the reel plate to a casting or fish rod.

5 An object of my invention is to provide a locking device for reel fittings, which is simple and economical in construction, which may be simply and quickly manipulated to engage, or disengage, the reel plate on the butt of a casting or other rod, and which is, at the same time, positive and efficient in operation.

10 These, and other objects and advantages of my invention will be more particularly set forth and described in the specification, the accompanying drawing, and the appended claims.

15 Broadly considered, my invention comprises an eccentric ring member that is channel-shaped in cross section with inwardly extending flanges, the inner edges of the flanges being eccentrically positioned, relative to the outer surface of the ring and a second eccentric ring located and positioned in the channel-shaped ring and having its inner surface in eccentric relation to its outer surface and formed with a notch to receive the end of a reel plate.

20 A preferred form of my invention is illustrated in the accompanying drawing, in which:

25 Fig. 1 is a partial, elevational view of the butt end of a casting or fish rod, showing a reel socket, reel plate, and my device in place for locking the reel plate to the rod.

30 Fig. 2 is a cross, sectional view on the line 2—2 of Fig. 1.

35 Fig. 3 is an enlarged, elevational view of the lock ring.

40 Fig. 4 is an enlarged, sectional view of the assembled lock ring.

45 Fig. 5 is an elevational view of the inner ring member, removed from the outer ring member.

50 Fig. 6 is a partial, sectional view of a modified form of locking ring.

55 Fig. 7 is a sectional view of another modified form of locking ring.

60 Fig. 8 is a sectional view of a third, modified form of ring and Figs. 9 and 10 are detail views.

Referring now to the drawing in detail, in which like numerals refer to like parts throughout:—

65 The reel plate 1 is removably secured on the butt end 2 of the casting rod 3, by means of the socket 4, formed on the butt 2 and the removable, locking ring 5, which is slidably secured on the butt 2. The rearwardly extending end 6, of the reel plate 1, is slidably secured in the socket 4,

and the forwardly extending end 7, or the reel plate 1, is locked to the butt 2 by the ring 5.

70 The locking ring 5 is made in three parts, comprising the outer ring member 8, the inner ring member 9, and the retaining ring 10, by means of which the outer ring 8 is rotatably secured on the inner ring member 9.

75 The outer ring member 8 is formed with the inwardly extending flange 11, and the inner face 12 of said flange is eccentrically formed and positioned, relative to the outer surface 13 of the ring 8. The retaining ring 10 is secured to the outer ring member 8 by brazing, or otherwise, and is also formed with its inner surface 14 eccentrically formed and positioned, relative to its outer surface 15, and when assembled in the ring 8, the eccentric surfaces 12 and 14 have a common axis. The inner ring member 9, shown removed in Fig. 5, is formed with the inner surfaces 16, eccentrically positioned, relative to the outer surface 17, and is also formed with the annular notch, or recess 18. The outer ring 8 is rotatably secured on the inner ring 9, by the retaining ring 10.

80 In operation, the reel plate 1 is placed on the butt 2 with the end 6 in the socket 4. The locking ring 5 is then slid over the forward end 7, which fits into the notch 18, with the thinner portion 20 opposite the notch 18; now by revolving the outer ring 8 and the retaining ring 10 around the inner ring 9 in either direction, the thicker portion 21 of the outer ring member 8 is brought opposite the notch 18, thus materially reducing the diametrical distances between the inner surfaces, 12 and 14, and the end 7 of the reel plate 1 and securely locking the reel plate to the butt of the rod. It should be stated, in explaining the locking of the inner ring 9 against the reel plate 1, that this inner, eccentric ring, because of its outer, eccentric surface 17 having a movement within the movable outer ring, relative to the outer surface of the outer ring 8, serves to move this inner ring against the reel plate 1 and thus firmly retain the reel plate on the butt 2. In other words, the distance between the axes of the two rings varies, as the relative circumferential positions of the two rings. The outer surface 13 of the ring 8 is knurled to facilitate operation, as indicated in Fig. 1. A reverse turn of the outer ring member 8 releases the gripping effect and permits the ring 5 to be slid forward on the butt 2, when it is desired to remove the reel plate 1; the notch 18 then receives the end 7.

85 Fig. 6 illustrates a modified form of construction, in which the retaining ring 10' is secured in 110

the ring 8', by means of the threads 22. It also serves as a lock, when rotated slightly.

In Fig. 7 is illustrated a further form of construction, in which a relatively greater, frictional contact is provided, between the outer, rotatable ring member 8, and the inner ring member 9, by knurling the inner surface 17' of the outer ring 8 and the outer surface 17'' of the inner ring 9.

Fig. 8 illustrates another method of providing frictional resistance between the outer ring 8 and the inner ring 9. The ring 9 is formed with its outer surface having a plurality of flat faces 24, and the outer ring 8 is formed with a plurality of flat faces 25, thus when the ring 8 is turned around the ring 9, the points 26 impinge against the faces 25, providing a binding effect between the ring 8 and the ring 9.

It should be observed that the reel plate 1 is positively locked, or clamped, to the butt 2 by rotating the outer ring member 8, in either direction and is released by turning this ring in a reverse direction. This is accomplished by reason of the oppositely disposed shoulders, or stops 18' 18'', on the inner ring 9. In other words, the reel plate 1 holds stationary, or fixed, the inner ring 9, when the outer ring 8 is rotated in either direction.

It should be understood that I do not limit myself to the use of my reel fitting on one end only of the reel plate 1 as I may use it, if desired, on either, or both ends.

As a further explanation of the locking operation, reference is made to Fig. 2. Consider the outer ring member 8 rotated in the direction of the arrow 22. This causes the thickened part 21 to engage the top of the butt 2 at the point 23, which moves the rings 8 and 9 upwardly relative to the butt 2. This movement forces the inner ring 9 and reel plate 1 against the bottom of the butt 2 at the point 24. Thus, the butt 2 and reel plate 1 are firmly gripped and clamped together between the surfaces 12 and 14 of the revolvable ring 8 and the inner surface 18'' of the notch 18, in the stationary ring 9 at 24. The ring 9 is prevented from revolving about its axis by the engagement of the reel plate 1, in the notch 18.

It is only necessary to hold one of the rings stationary, in some manner, while the other ring is revolved, to bring into play the relative diametrical movement, which decreases, or increases, the diametrical distance between one ring, in engagement with the reel plate and the other ring, in engagement with the rod opposite the reel plate. This action will occur whenever the relative positions of the two rings are changed by revolving one of the rings in either direction.

The inner eccentric ring 9 is held and controlled by the recess 18 and stops 18', which project inwardly and engage, as stated, the rod, or reel plate, as shown in Fig. 2. In other words, the same effect is produced to retain the reel plate 1 stationary, as if a projection and recess were employed between the ring 9 and butt 2. The outer ring 8, when turned, frictionally engages the inner ring 9, to slightly move the same, but only a very small amount, as a degree, or two.

What I claim is:—

1. A locking device comprising ring members, one assembled within the other and movable relative to each other, each member having eccentric flange portions, the inner member having a recess or notch between the eccentric flanges for

receiving a member to be clamped to a rod when the outer ring member is rotated.

2. A clamping ring device comprising two ring members one mounted within the other for relative movement, each ring having eccentric flanges but in different planes, the inner and outer surfaces of the rings having spaced contacting points for retaining the ring members in fixed relation but permitting the release of one relative to the other.

3. A clamping device comprising two ring members, one mounted within the other for relative movement, each ring having eccentric surfaces, the inner ring having a recess to receive a part to be clamped to a rod, the construction being such that when the outer ring is rotated in either direction the part will be firmly clamped, as described.

4. A device for removably securing the reel plate of a fishing reel to its rod, comprising, in combination, an outer and inner ring member movable relative to each other, each member having an eccentric flange, one member having a recess part for receiving the reel plate of the reel, whereby when the outer ring is turned in either direction the inner ring will be held stationary and the reel plate will be clamped to its rod.

5. A clamping device for securing the bottom plate of a fishing reel to the rod comprising an outer ring having aligned and spaced eccentric flanges, an inner ring rotatable within the space between the flanges of the outer ring and having eccentric flanges in the same plane and a notch or recess between the eccentric flanges of the inner ring to receive an end of the bottom plate of a fishing reel, whereby when the outer ring is rotated the reel plate of the reel will be clamped to the rod.

6. A clamping device for a reel plate comprising, in combination, with a member to which the reel is to be attached, an outer movable ring having an inner eccentric surface, and a member located within the outer ring that is formed with stops engaging said reel plate to prevent rotation of said member, when the outer ring is rotated to bring the inner eccentric surface of the outer rotatable ring against the member to which the reel is to be attached.

7. Means for clamping a reel plate to a rod, or the like, comprising, an outer rotatable ring with an eccentric surface, an inner ring wholly within the outer ring, and stops on the inner ring for retaining the reel plate in a fixed position when the outer ring is rotated to engage the reel plate and to prevent movement of the reel plate when released by a reverse movement of the outer rotatable ring.

8. Means for attaching the reel plate of a fishing reel to a rod, or the like, comprising a member to receive the rod and having opposed abutments for providing a recess to receive the reel plate, a rotatable member located outside the said member and formed with wedge means for engaging the said member when rotated for forcing the reel plate to the rod, the construction and arrangement being such that the reel plate is clamped to the rod when the rotatable member is turned in either direction and released when moved in a reverse direction, as described.

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