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HANDLE ASSEMBLY CASTING ROD

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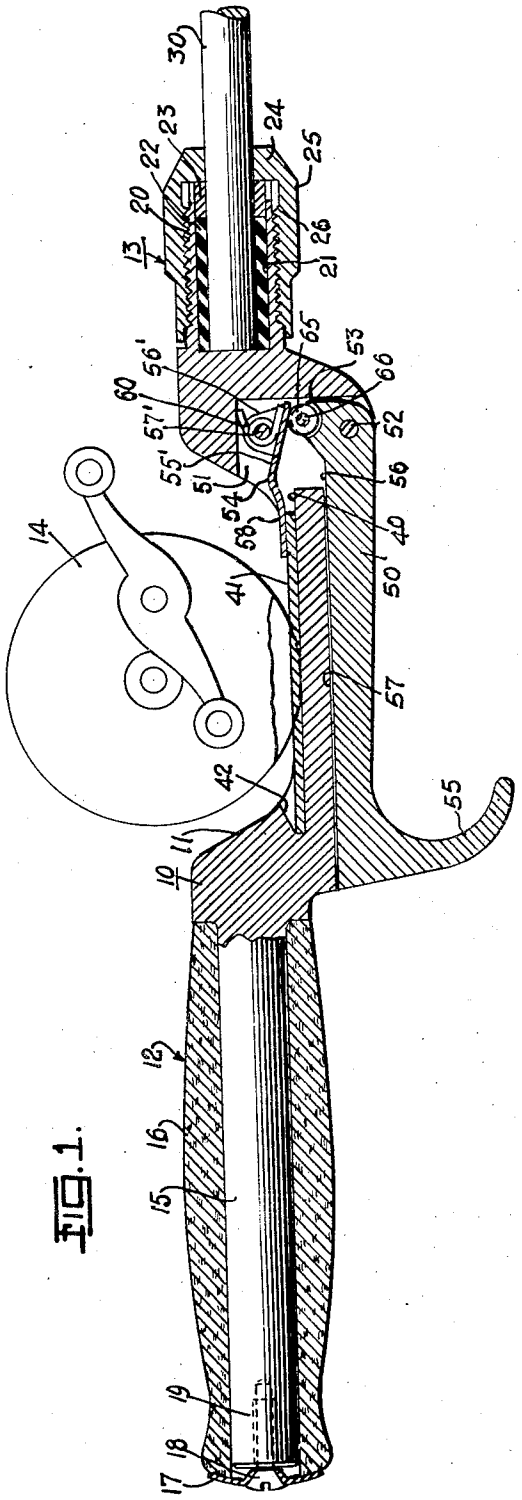


FIG. 1.

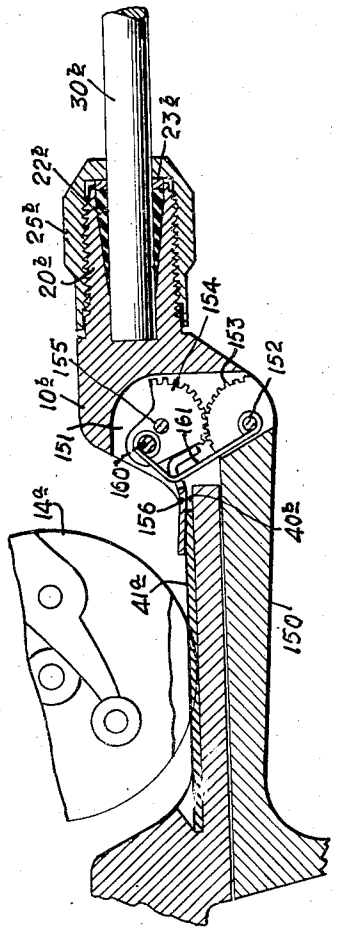


FIG. 2.

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HANDLE ASSEMBLY CASTING ROD

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16 Claims. (Cl. 43—22)

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This invention relates to a handle for a fishing rod or casting rod, and particularly relates to an apparatus for holding a casting rod securely within the handle, and for holding a reel upon the reel seat of the casting rod.

An object of the invention is to provide an improved casting rod handle having a lock for holding a reel in position on the reel seat of the handle, and also wherein the lock is adapted to be continuously held in locking position against accidental opening thereof.

Another object of the invention is to provide a casting rod handle with an improved locking arrangement for frictionally holding a casting rod in position within the handle.

Another object of the invention is to provide a casting rod handle with an improved form of locking apparatus for holding a reel in position upon the reel seat of the handle wherein the lever for operating the locking apparatus also provides a finger grip which may be engaged by a finger of the operator for holding the lock in locking position.

Further objects and advantages will become apparent from the drawings and following description.

Referring to the drawings:

Figure 1 is a vertical cross sectional view taken through the casting rod handle and locking mechanism of this invention;

Figure 2 is a partial cross sectional view of a casting rod handle illustrating a modified arrangement of locking mechanism for holding a reel in position on the reel seat of the handle.

In Figure 1 there is illustrated an improved form of casting rod handle wherein the body 10 of the handle is formed of a casting. The cast body 10 has a recessed portion 11 positioned between the rear handle portion 12 of the body 10 and a front grip portion 13 to receive a reel 14.

The rear handle portion 12 consists of a cylindrical portion 15 extending from the body 10 of the handle and is surrounded with a grip member 16, which may be composed of cork or other suitable material. The grip member 16 is held in position upon the cylindrical portion 15 by means of a washer 17 that has a machine screw 18 passing through and threaded into a threaded hole 19 in the end of the cylindrical portion 15.

The front grip portion 13 of the handle 10 consists of a threaded body portion 20 extending forwardly of the body of the handle 10. The threaded portion 20 is provided with an axial bore 21 therein which receives a resilient sleeve 22, consisting of a rubber or rubber-like material.

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A metal sleeve 23 is also provided within the bore 21 and engages one end of the resilient sleeve 22. The opposite end of the metal sleeve 23 is engaged by the rear wall of the nose portion 24 of an internally threaded locking member 25.

The locking member 25 has threads 26 cooperating with the threaded portion 20 so as to cause the metal sleeve 23 to compress the resilient sleeve 22 when the member 25 is threaded upon the threaded portion 20.

A casting rod 30 is adapted to have one end thereof positioned within the resilient sleeve 22 which frictionally binds upon the end of the casting rod 30 to hold the same in position in the casting rod lock just described.

The central recessed portion 11 of the body of the handle 10 is provided with a relatively flat surface 40 that forms a seat for the base member 41 of a reel 14 adapted to be secured upon the handle 10. The reel seat 40 is positioned below the axial center line between the rear grip portion 12 and the front grip portion 13 so that the reel 14 will be positioned sufficiently low to allow engagement thereof by the thumb of an operator.

The reel seat 40 terminates at one end in an undercut portion 42 provided in the body of the handle 10 to receive one end of the base 41 of a reel 14. This undercut portion 42 is preferably arranged on a taper to cause frictional binding upon the end of the base 41 of the reel when in position upon the reel seat 40.

The locking apparatus for holding the reel 14 in position upon the reel seat 40, consists of a lever 50 that is pivotally mounted within a recess or slot 51 provided in the forward portion of the body of the handle 10. A pivot pin 52 passes transversely through the body 10 for pivotally securing the lever 50 thereupon. The forward end of the lever 50 is provided with an extending portion 53 that forms a cam member for actuating a locking member 54 to hold the reel 14 in position upon the reel seat 40. The rear portion of the lever 50 terminates in a downwardly extending finger hook 55 that is adapted to be grasped by a finger of the operator of the device. The lever 50 is provided with a relatively flat surface 56 adapted to engage a corresponding flat surface 57 provided on the underside of the reel seat 40 when the lever 50 is in locking position, as illustrated in Figure 1.

The locking member 54 is preferably formed of a resilient member having an upwardly extending portion 55' provided with an ear 56' located on each side of the member 54. A pivot pin 57'

passes through the body 10 and through the ears 56', thus forming a pivot for the locking member 54.

The locking member 54 has a general downwardly extending portion 58 contiguous with the portion 55' and which is adapted to engage the forward end of the base 41 of the reel 14 to frictionally hold the base 41 upon the reel seat 40, and to retain the rear edge of the base 41 within and in engagement with the recess 42.

A torsion spring 60 is disposed around the pivot pin 57'. The torsion spring 60 has one end thereof engaging the upper wall of the recess 51 and has the opposite end engaging the member 54, thereby tending to rotate the member 54 in a clockwise direction.

To operate the mechanism heretofore described, the lever 50 is rotated in a counter clockwise direction thereby causing the cam nose 53 to recede from the locking member 54 and allow the member to rotate in a clockwise direction as caused by the torsion spring 60. The reel 14 may then either be removed from the seat 40 or be positioned upon the same.

To lock the reel 14 in position upon the reel seat 40, the lever 50 is rotated in a clockwise direction thereby causing the cam nose 53 to ride against the upwardly inclined portion 55' of the locking member 54 to rotate the same in a counter clockwise direction, thus causing the forward portion 58 of the member 54 to engage the forward portion of the reel base 41 and hold the same upon the reel seat 40. The resiliency provided in the locking member 54 is sufficient to retain a positive frictional contact of the member 54 upon the base 41 of the reel.

When the locking apparatus is in the locking position, as illustrated in Figure 1, it will be noted that the point of engagement of the nose portion 53 of the lever 50 with the locking member 54 is disposed on the righthand side of a line passing between the axes of the pivot pins 52 and 57'. This arrangement thereby provides an over center throw mechanism with the member 54 urging the lever 50 in a clockwise direction, thus holding the lever 50 in locking position.

If desired, a small roller 65 may be provided in the nose portion 53 of the lever 50 to engage the locking member 54, the roller 65 being carried upon a bearing pin 66.

It will also be noted that the over center throw arrangement of the locking mechanism for holding the reel upon the handle is such that when a reel is removed from the handle the lever 50 will be retained in position against the bottom face of the reel seat 40, as illustrated in Figure 1.

With the lever 50 extending rearwardly to a position substantially in alignment with the rear edge of the reel 14, the finger loop 55 is positioned so that the fore-finger of an operator can readily grasp the finger loop 55 when operating the casting rod and will thus insure against accidental opening of the reel locking mechanism.

In Figure 2 there is shown a modified arrangement of the reel locking mechanism illustrated in Figure 1, and a slightly modified arrangement of the casting rod locking mechanism illustrated therein.

The casting rod locking mechanism illustrated in Figure 2 for locking the casting rod 30*b* upon the handle 10*b* consists of a tapered resilient sleeve 22*b* which is engaged by a sleeve 23*b* when the member 25*b* is rotated upon the threaded portion 20*b*.

The reel locking mechanism, illustrated in Figure 2, consists of a lever 150 that is pivotally mounted in a recess 151 in the handle 10*b* by means of a pivot pin 152. The forward end of the lever 150 has a gear segment 153 thereon that cooperates with a gear segment 154 pivotally carried upon the pin 155.

The gear segment 154 carries a locking member 156 adapted to engage the base 41*a* of the reel 14*a* to hold the reel in position upon the reel seat 40*b* of the handle 10*b* in the same manner as heretofore described with reference to the apparatus illustrated in Figure 1.

The gear segment 154 carries a pin 160 that has one end of a tension spring 161 positioned around the same. The opposite end of the tension spring 161 is positioned around the pivot pin 152 for the lever 150.

The axes of the pins 152 and 160 are positioned on the lefthand side of the pivot pin 155 when the lever 150 is in locking position, as illustrated in Figure 2. Thus, an over center throw mechanism is provided so that the spring 161 tends to hold the lever 150 in the locking position illustrated in Figure 2.

The operation of the device illustrated in Figure 2 is substantially the same as that of the device illustrated in Figure 1, it being apparent that counterclockwise rotation of the lever 150 will cause clockwise rotation of the locking member 156 and vice versa to unlock and lock respectively the mechanism.

While the apparatus disclosed and described herein constitutes preferred forms of the invention, yet it will be understood that the apparatus is capable of mechanical alteration without departing from the spirit of the invention and that all modifications that fall within the scope of the appended claims are intended to be included herein.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A casting rod handle including, a reel seat, stationary means at one end of said reel seat for holding the base of a reel upon the seat, a movable locking member disposed adjacent the opposite end of said seat and including means upon which said member is oscillatable, and a lever movable relative to said seat operably associated with one end of said locking member for oscillating the same toward or away from said seat.

2. A casting rod including, a reel seat, stationary means at one end of said seat for engaging one end of a reel base to hold the same upon said seat, a movable locking member disposed adjacent the opposite end of said seat for engaging the end of a reel base upon said seat, pivot means for supporting said locking member in said position, and a lever operated cam member engaging one end of said locking member to effectuate rotation of the locking member relative to said seat upon rotation of the cam member to lock and unlock a reel base positioned upon said seat.

3. A casting rod including, a reel seat, stationary means at one end of said seat for engaging one end of a reel base to hold the same upon said seat, a movable locking lever positioned adjacent the opposite end of said seat and including pivot means for mounting the same in the said position, and an actuating lever pivotally mounted adjacent said opposite end of said seat and having means extending therefrom for engaging said locking lever to move the same toward and away

from said seat upon actuation of said actuating lever.

4. A casting rod including, a reel seat, stationary means at one end of said seat for engaging one end of a reel base to hold the same upon said seat, an oscillatable locking member positioned adjacent the opposite end of said seat, an oscillatable actuating member for oscillating said locking member and including lever means for operating the same, and resilient means tending normally to rotate one of said oscillatable means, said oscillatable means having their axes disposed relative to one another to form an over center throw mechanism energized by said resilient means for holding said locking member in locking position.

5. A casting rod including, a reel seat, stationary means at one end of said seat for engaging one end of a reel base to hold the same upon said seat, an oscillatable locking member positioned adjacent the opposite end of said seat, an oscillatable actuating member for oscillating said locking member and including lever means for operating the same, and resilient means tending normally to rotate one of said oscillatable means, said oscillatable means having their axes disposed relative to one another to form an over center throw mechanism energized by said resilient means for holding said locking member in locking position and said actuating lever adjacent said seat.

6. In a casting rod handle, the combination of, a wall portion forming a reel seat on one side thereof, stationary means at one end of said seat for holding one end of a reel base in position upon said seat, an oscillatable locking member positioned adjacent the opposite end of said seat and including means for mounting the same in said position, and an oscillatable actuating member operably connected with said locking member for oscillating the same and including a lever extending therefrom for actuating the same and adapted for positioning against the opposite side of said wall portion when the locking member is in locking position.

7. In a casting rod handle, the combination of, a wall portion forming a reel seat on one side thereof, stationary means at one end of said seat for holding one end of a reel base in position upon said seat, an oscillatable locking member positioned adjacent the opposite end of said seat and including means for mounting the same in said position, and an oscillatable actuating member operably associated with said locking member for oscillating the same and including a lever extending therefrom for actuating the same and adapted for positioning against the opposite side of said wall portion when the locking member is in locking position, said lever having a finger engaging portion thereof terminating in a finger loop positioned adjacent the said stationary means.

8. In a casting rod handle, the combination of, a wall portion forming a reel seat on one side thereof, stationary means at one end of said seat for holding one end of a reel base in position upon said seat, an oscillatable actuating member operably connected with said locking member and having lever means extending therefrom for actuation thereof and adapted to be positioned against the opposite side of said wall portion when the locking member is in locking position, resilient means tending normally to oscillate said members relative to one another, said oscillatable members having their axes positioned relative to one another to provide an over center throw mechanism energized by said resilient means acting thereon to hold said locking member and said lever in locking position.

9. A casting rod handle consisting of a body, a relatively narrow wall portion in said body forming on one side thereof a reel seat, stationary means at one end of said reel seat for holding a reel base thereon, a locking lever positioned adjacent the opposite end of said reel seat having one end thereof positioned above the said seat, pivot means for supporting said locking lever adjacent one end thereof, an actuating member for said locking lever engaging the same to move said lever toward or away from said seat, pivot means supporting said actuating lever beneath said locking lever, said actuating lever being adapted for positioning adjacent the opposite side of said wall portion when said locking lever is in locking position, and reslient means operably connected with said actuating lever and said locking lever for holding the same in locking position.

10. A casting rod handle including in combination, a body, a relatively narrow wall portion in said body forming on one side thereof a reel seat, a recess in said body adjacent one end of said reel seat for holding one end of the base of a reel in engagement with the seat, a recess at the opposite end of said reel seat, a movable locking lever disposed within said second recess, pivot means for mounting said lever within said recess, an actuating member positioned within said second recess for engaging and operating said locking lever, pivot means mounting said actuated means in said second recess, resilient means for urging said locking member and said actuating member into rotation and holding the same in locking position, and an actuating lever extending from said actuating means for operating the same and positioned adjacent the opposite side of said wall portion when said locking lever is in locking position.

11. A casting rod handle including in combination, a body, a relatively narrow wall portion in said body forming on one side thereof a reel seat, a recess in said body adjacent one end of said reel seat for holding one end of the base of a reel in engagement with the seat, a recess at the opposite end of said reel seat, a movable locking lever disposed within said second recess, pivot means for mounting said lever within said recess, an actuating member positioned within said second recess for engaging and operating said locking lever, pivot means mounting said actuated means in said second recess, resilient means for urging said locking member and said actuating member into rotation and hold the same in locking position, and an actuating lever extending from said actuating means for operating the same and positioned adjacent the opposite side of said wall portion when said locking lever is in locking position, and terminating in a finger loop disposed substantially beneath said first mentioned recess.

12. A handle for a casting rod that includes in the combination, a body, a relatively narrow wall portion in said body forming on one side thereof a narrow seat, a recess at one end of said seat to receive one end of a reel base to hold the same upon said seat, a second recess in said body adjacent the opposite end of said seat, a locking lever positioned within said second recess and having pivot means associated therewith for pivotally mounting the same therein, a cam ac-

tuated member positioned within said second recess having pivot means associated therewith for rotatably mounting the same therein and engaging one end of said locking lever to effect oscillation of the opposite end thereof relative to said seat, and an actuating lever extending from said actuating cam for operating the same and adapted to lay adjacent the opposite side of said wall portion when said locking lever is in locking position.

13. A handle for a casting rod that includes in the combination, a body, a relatively narrow wall portion in said body forming on one side thereof a narrow seat, a recess at one end of said seat to receive one end of a reel base to hold the same upon said seat, a second recess in said body adjacent the opposite end of said seat, a locking lever positioned within said second recess and having pivot means associated therewith for pivotally mounting the same therein, a cam actuated member positioned within said second recess having pivot means associated therewith for rotatably mounting the same therein and engaging one end of said locking lever to effect oscillation of the opposite end thereof relative to said seat, and an actuating lever extending from said actuating cam for operating the same and adapted to lay adjacent the opposite side of said wall portion when said locking lever is in locking position, and a resilient member engaging said locking lever to hold one end thereof against said actuating cam, said pivot means for said locking lever and said actuating cam being disposed relatively to the point of engagement of said cam upon said locking lever when said device is in locking position to form a toggle link actuated by said resilient means to hold said locking lever and said actuating lever in locking position.

14. A handle for a casting rod including in combination, a body, a relatively narrow wall portion forming on one side thereof a reel seat, a recess at one end of said seat to receive one end of a reel base, a second recess at the opposite end of said reel seat, a locking lever positioned within said second recess having pivot means associated therewith for pivotally mounting the same and including a gear segment, an actuating member positioned within said second recess having pivot means associated therewith for pivotally mounting the same and including a gear segment engaging said first gear segment,

and lever means extending from said actuating member for operating the same and adapted to be positioned against the opposite side of said wall portion when said locking lever is in locking position.

15. A handle for a casting rod including in combination, a body, a relatively narrow wall portion forming on one side thereof a reel seat, a recess at one end of said seat to receive one end of a reel base, a second recess at the opposite end of said reel seat, a locking lever positioned within said second recess having pivot means associated therewith for pivotally mounting the same and including a gear segment, an actuating member positioned within said second recess having pivot means associated therewith for pivotally mounting the same and including a gear segment engaging said first gear segment, and resilient means extending between said gear segments to resiliently hold said locking lever and said actuating lever in locking position.

16. A handle for a casting rod including in combination, a body, a relatively narrow wall portion forming on one side thereof a reel seat, a recess at one end of said seat to receive one end of a reel base, a second recess at the opposite end of said reel seat, a locking lever positioned within said second recess having pivot means associated therewith for pivotally mounting the same and including a gear segment, an actuating member positioned within said second recess having pivot means associated therewith for pivotally mounting the same and including a gear segment engaging said first gear segment, and resiliently hold said locking lever and said actuating lever in locking position, said actuating lever terminating in a finger loop substantially beneath said first recess.

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