Nov. 20, 1951 A. S. HUNTINGTON 2,575,960

THREAD WINDER

Filed April 9, 1948

FIG. 1

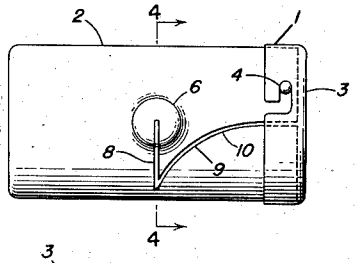


FIG. 2

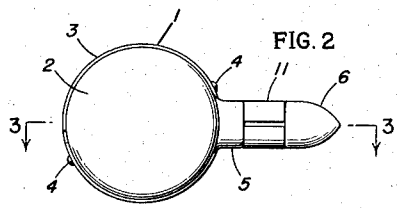


FIG. 3

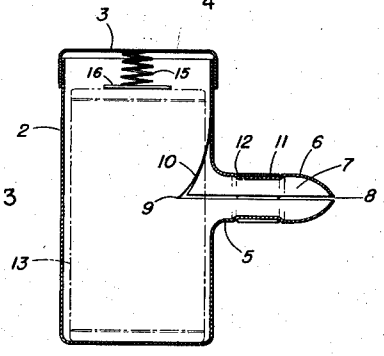
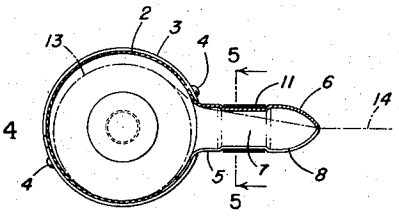


FIG. 4



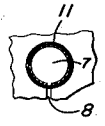


FIG. 5

FIG. 6

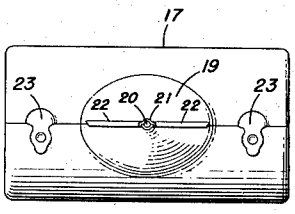
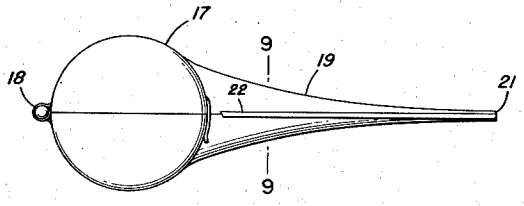


FIG. 7



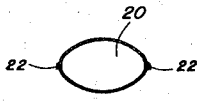


FIG. 9

FIG. 8

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Patented Nov. 20, 1951

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UNITED STATES PATENT OFFICE

2,575,960

THREAD WINDER

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Application April 9, 1948, Serial No. 19,942

9 Claims. (Cl. 242—146)

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This invention relates to thread winders for winding fishing rods and the like.

The primary object of the invention is to provide an improved thread winder having a spool case and attached thread guide in which thread is insertible in the thread guide without threading.

Another object of the invention is to provide an improved thread winder capable of quick loading and unloading in which the spool of thread is fully enclosed.

An additional object of the invention is to provide an improved thread winder having a thread guide formed integrally with the spool case and means for applying tension to thread by which the thread can be wound rapidly and precisely without being touched.

A further object of the invention is to provide an improved thread winder of simple and rugged construction and pronounced ease of operation.

Other objects and advantages of the invention will appear hereinafter in the detailed description, be particularly pointed out in the appended claims, and illustrated in the accompanying drawings, in which:

Figure 1 is a front elevational view of a thread guide embodying the invention.

Figure 2 is an end elevational view of the thread guide of Figure 1.

Figure 3 is a vertical sectional view taken along the lines 3—3 of Figure 2.

Figure 4 is a vertical sectional view taken along the lines 4—4 of Figure 1.

Figure 5 is a vertical sectional view taken along the lines 5—5 of Figure 4.

Figure 6 is a front elevational view of another embodiment of the invention.

Figure 7 is a side elevational view of the thread winder of Figure 6.

Figure 8 is a plan view of the thread winder of Figure 6 in opened position; and

Figure 9 is a vertical sectional view taken along the lines 9—9 of Figure 7.

Referring now in detail to the drawings, in which like reference characters designate like parts and first to the embodiment of the invention illustrated in Figures 1 through 5, there is there shown a thread winder comprising a substantially cylindrical hollow case 1 formed of a body 2 open at one end, the open end being adapted to be closed by a cap or cover 3. To enable the cover to be removed rapidly and with a minimum of effort, it is preferably attached to the body by a bayonet or like joint 4.

Intermediate the ends of the body and projecting substantially radially of the axis thereof is a hollow nosepiece or thread guide 5 of substantially cylindrical cross-section and having at its outer end a conical tip 6. Extending axially through the nosepiece and merging at its inner end with the hollow interior of the case is a preferably annular central passage, bore or guideway 7.

Interrupting or intersecting the wall of the nosepiece 5 and extending therebeyond through an adjacent portion of the wall of the body 2 below the junction of the latter with the nosepiece is one leg 8 of a V-shaped slot 9. As shown, the leg 8 opens into or exposes the passage 7 in the nosepiece and preferably lies in a plane disposed normal to the axis of the case 1. The other leg 10 of the slot also interrupts the wall of the body and extends therethrough to the open end of the latter. While this second leg may be planar, it is shown as arcuate, flattening at its outer end into a plane substantially parallel to the axis of the case. The V-shaped slot thus provides a continuous channel from the open end of the body to the passage 7 in the nosepiece.

To the nosepiece intermediate its ends there is applied an encircling split spring sleeve, ring or collar 11, which on being applied may be held in place by a seat or saddle 12 in the nosepiece of corresponding configuration. The collar 11 is of sufficient resiliency to engage and grip the nosepiece and at the same time to be rotatable relative thereto such that its split, of corresponding spacing, can be brought into alignment or coincidence with the slot 9 in the nosepiece.

In use, the cover 3 of the case is first removed and a spool of thread 13, indicated diagrammatically, is inserted or dropped into the body 2 through the open end of the latter. In process, the loose end of the thread 14 is led, laid, introduced or inserted through the V-shaped slot 9 from the open end of the case into and through the nosepiece. As soon as the thread is in place the collar 11 is turned sufficiently to close the slot 9, thereby locking the thread in place by preventing its egress or displacement through the slot. The cover 3 is then applied and the thread 14 now in the position shown diagrammatically in Figure 4, is ready for use.

Since if loosely seated in the case, the thread could be pulled from the spool as readily as though no case were employed, there is provided within the case means for applying a frictional drag to the thread. This may be accomplished in the manner illustrated by attaching to the underside of the cover 3 a coil compression spring 15

to the outer ends of which is attached a friction disc 16, the latter bearing directly against one end of the spool. If desired, the frictional drag may be made adjustable in any suitable manner to accommodate spools of different size or thread of different material.

Referring now to the embodiment of Figures 6 through 9, there is there shown a split or two-piece substantially cylindrical case or bobbin 17, the two hemi-cylindrical parts or halves of which are connected at one end by a hinge 18. Formed integrally with the case and divided in the same manner into two parts is a nosepiece or thread guide 19 which projects from the case intermediate the ends of the latter and is substantially normally or radially disposed relative to the axis thereof. While the nosepiece may be of several forms, that shown is substantially conical with an axial central passage, groove, bore or guideway 20 converging toward its outer end to form a restricted opening at the tip 21. As shown, one side of the nosepiece is provided at either edge with a side or sealing flange or lip 22 which overlaps or covers the joint between the two parts of the nosepiece when the case 17 is closed. For holding the case in closed position there may be provided latching or locking means such as the illustrated spring latches 23, one of which may be mounted on the case at either side of the nosepiece. As with the first embodiment, there is provided a resilient friction brake for the thread which may be in the form of a coil compression spring 24 attached at one end to the inside of the case and carrying at its other end a friction disc 25.

The mode of loading of the modified thread winder is apparent from Figure 8. As there shown, a spool indicated diagrammatically at 26, is inserted in the part of the case 17 carrying the friction brake with the loose end of the thread, indicated diagrammatically at 27, introduced or inserted in or led or laid along the exposed part of the passage 20 in the associated part of the nosepiece 19. After the spool has been loaded the two parts of the case are brought together and locked in closed position by the latches 23, whereupon the thread winder is ready for use.

The operation of both embodiments of the invention is substantially the same. With either, the passage in the nosepiece can be exposed throughout its length from the side to permit thread to be laid therein without threading and thereafter closed to lock the thread in place. After loading, the bobbins or cases are adapted to be held in the hand with their nosepieces so disposed as to feed or direct the thread to the fishing rod or other member being wound or wrapped. Since the nosepiece with the friction brake applied to the thread affords greater nicety of placement of the thread than would fingers, the latter need not be used. As a consequence, silk, metal or other types of wrappings or windings may be applied without being touched. In addition, the thread guide is of sufficient weight that when dropped, either accidentally or intentionally, it will maintain adequate pressure on the wrapping to prevent the latter from unwinding or unraveling. As will be understood, the cases and nosepieces of the thread winders may be formed of metal, plastic or other suitable material.

From the above detailed description of the invention it will be apparent that there has been provided an improved thread winder of simple and rugged construction which is simple in use, especially quick loading and unloading, and does not require threading. It should be understood that the described and disclosed embodiments are merely exemplary of the invention and that all modifications are intended to be included which do not depart either from the spirit of the invention or the scope of the appended claims.

Having described my invention, I claim:

1. A thread winder comprising a case, a thread guide connected thereto projecting outwardly thereof, said guide having a bore, means for permitting introduction of thread through a side of said bore, and means for preventing displacement of said thread through said side.

2. A thread winder comprising a case adapted to receive a spool of thread, a nosepiece attached to said case and having a passage therethrough disposed angularly relative to the axis of said spool, and means normally enclosing a portion of said passage intermediate ends thereof, said passage being exposable throughout the length thereof to permit thread to be laid therealong.

3. A thread winder comprising a substantially cylindrical case, a thread guide formed integrally with said case and projecting therefrom intermediate the ends thereof, said thread guide having a passage extending therethrough substantially normal to the axis of said case, means for inserting a spool into said case and thereafter applying pressure thereto, means for permitting introduction of thread through a side of said passage throughout the length thereof to permit said thread to be laid therealong, and means for preventing displacement of said thread through said side.

4. A thread winder comprising a cylindrical case open at one end and adapted to receive a spool, a nosepiece projecting from said case intermediate the ends thereof, said nosepiece having a channel extending therethrough substantially normal to the axis of said case, a substantially V-shaped slot having one leg intersecting a wall of said nosepiece and extending therebeyond through a wall of said case, said leg lying in a plane disposed substantially normal to the axis of said case, said other leg of said slot being arcuate and extending through the open end of the wall of said case, a cover normally closing said open end and carrying a resilient friction brake for applying frictional drag to said spool, and a sleeve rotatably encircling said nosepiece intermediate the ends thereof and having a slot adapted to align with the slot in said nosepiece for alternately opening and closing a side of said passage.

5. A thread winder comprising a substantially cylindrical case for housing a spool of thread, a substantially conical thread guide formed integrally with said case and projecting therefrom intermediate the ends thereof for guiding thread drawn from said spool, said case and thread guide being separable into two hingedly connected parts, means for latching said case and thread guide in closed position, and a friction brake affixed to an end of one side of said case for engaging said spool and tensioning said thread.

6. A thread winder comprising a case open at one end, a nosepiece projecting substantially radially from said case intermediate ends thereof, said nosepiece having a channel extending therethrough, a continuous slot intersecting walls of said nosepiece and case and extending to the open end of said case, and a split sleeve rotatably encircling said nosepiece for alternately interrupting and exposing a portion of said slot.

7. A thread winder comprising a two part case adapted to hold a spool, a nosepiece having a part formed integrally with each of said case parts and projecting therefrom substantially normal to the axis of said spool, means for hinging the two parts of said case and nosepiece, means on said nosepiece for covering the joint between the parts thereof when said case is closed, and means for locking said case in closed position.

8. A thread winder comprising a case adapted to hold a spool of thread, a nosepiece formed integrally with said case and projecting therefrom substantially normal to the axis of said spool for guiding thread drawn from said spool, said case and nosepiece being separable into hingedly connected parts, means on said nosepiece for covering the joint between the parts thereof when said case is in closed position, and means engaging said spool for applying frictional drag to said thread.

9. A thread winder comprising a case open at one end, a nosepiece projecting substantially

radially from said case intermediate the ends thereof, said nosepiece having a channel extending therethrough, a continuous slot intersecting a wall of said case and exposing a side of said channel, said slot extending to the open end of said case, and a split sleeve encircling said nosepiece and movable relative thereto for alternately interrupting and exposing a portion of said slot.

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