

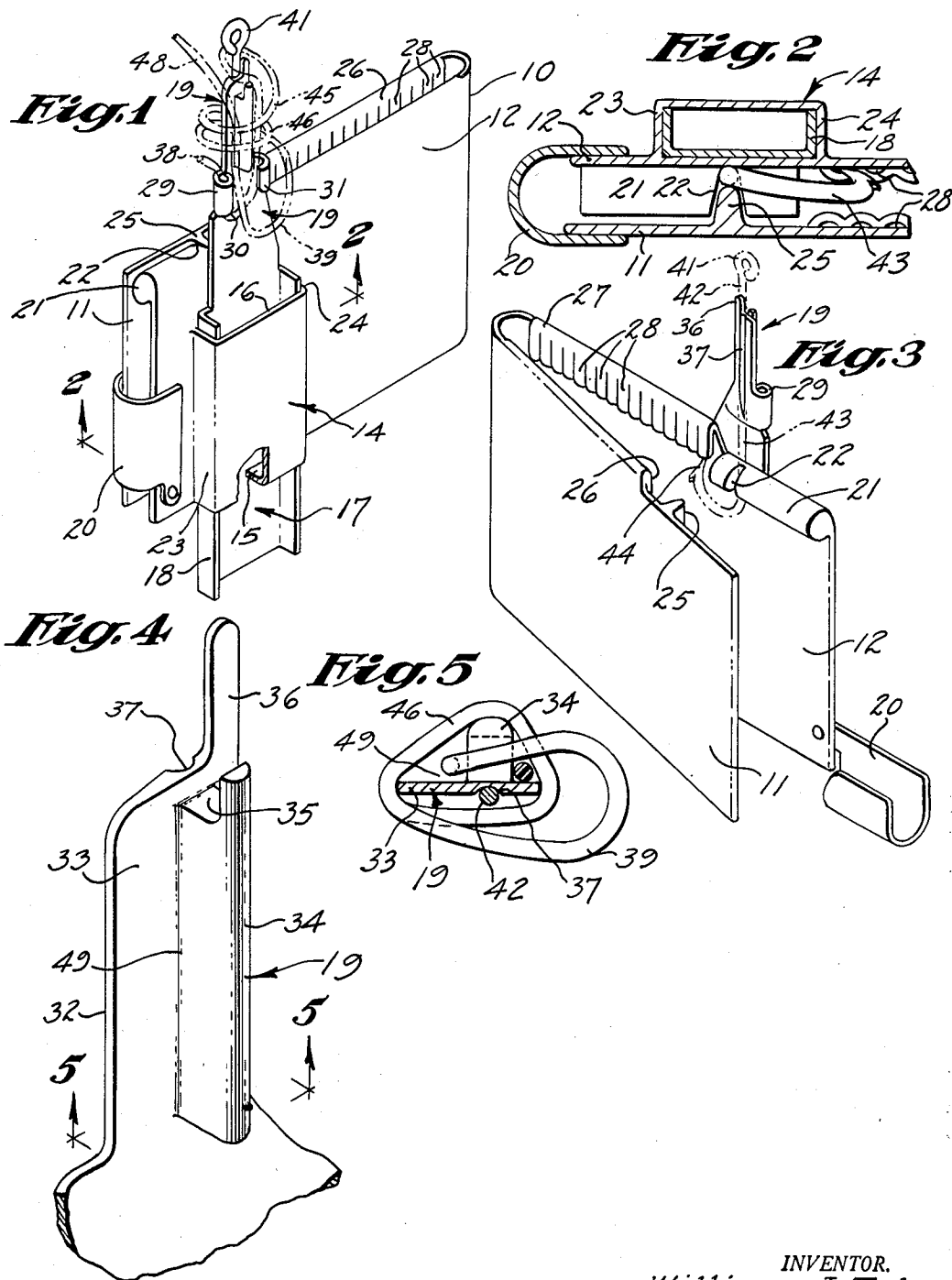
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DEVICE FOR FORMING KNOTS ON SHANKS

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DEVICE FOR FORMING KNOTS ON SHANKS

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1 Claim. (Cl. 43—1)

The present invention relates to knot forming devices and more particularly to a device for forming knots on shanks.

The objects of my invention are to provide a device that will enable one to quickly and easily form a knot on shanks, that will require no skill to use, that is of simple construction, that can be economically manufactured and that can be conveniently carried on one's person.

The invention possesses other objects and features of advantage, some of which, with the foregoing will be set forth in the following description. The embodiment I have chosen to illustrate my invention is a device for attaching a leader to the shank of a fishhook. A leader is a short line of transparent fiber used to attach the end of a fishline to the hook. It is to be understood that I do not limit myself to this disclosure of species of my invention as I may adopt variant embodiments thereof within the scope of the claim.

Fig. 1 is a perspective view of the device in operation with a portion broken away.

Fig. 2 is a horizontal section taken along the line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the open position of the device showing the internal construction of the device with a fishhook in place.

Fig. 4 is an expanded perspective view of the upper portion of the winding needle.

Fig. 5 is a horizontal section taken along the line 5—5 of Fig. 4 with the addition of the fishhook in position and the device in operation.

Referring by numerals to the accompanying drawings which illustrate a preferred embodiment of my invention, 10 designates the base, composed of sides 11 and 12 joined at one end only. Vertically mounted on the outside of side 12 of base 10, near the open end of said base is a pull bar guide consisting of a channel guide 14 and a tab 15 attached at a right angle to the bottom of web 16 of said channel. Tab 15 extends into the open section of said channel and is admeasured to fit snugly and slidably into said channel of pull bar guide 14.

A pull bar 17 consisting of a channel 18 and a winding needle 19 formed above is slidably mounted in the channel of pull bar guide 14 with the open side of channel 18 facing tab 15. A clamp 20 is pivotally mounted on side 12 on the vertical end of side 12 at the open end of base 10. In its closed position clamp 20 holds the sides 11 and 12 of base 10 together.

Formed on the top inside face of side 12 near the open end of base 10 is a ridge 21 with a V-shaped notch 22 formed therein vertically positioned between the upward vertical extensions of the flanges 23 and 24 of pull bar guide 14. Formed on the inside face of side 11 directly opposite to and adapted to fit into notch 21 when the vise 10 is in its closed position is a vertically disposed V-shaped ridge 25 of slightly smaller angle than notch 21. Formed on the top edges of sides 11 and 12 directly opposite each other between the ridge 25 on side 11 on one hand and

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ridge 21 on side 12 on the other hand and the closed end of the vise are two flanges 26 and 27 containing a plurality of vertical slots 28.

Referring to Fig. 1, the face of the winding needle 19 consists of a tubular leader grip 29 on the left side having at its lower right end an upwardly tapered slot 30 and on the right side a semi-cylindrical leader guide tab 31 with open inside peripheral surface facing leader grip 29 and a prong 32 extending longitudinally upward consisting of a narrow strip 33, a longitudinally disposed ridge 34 along the entire length of and extending slightly beyond said strip, the longitudinal axis of which ridge is in vertical alignment with notch 22 when the pull bar is in operating position as shown in Fig. 3. The combination of the strip 33 and ridge 34 serves as a spacer (as described hereinafter, the coils are wound and held tautly around the shank 42 of fishhook 43 and said combination) to position the coils away from the shank so that the line can be passed through the taut coils. The spacer can be any shape and can be denoted more generically as a coil spreading element.

Ridge 34 forms a groove 49 with the portion of prong 33 to its left providing a passage through which the line to be knotted is passed when the coils 45 and 46 are wrapped around prong 33 and shank 42 as hereinafter described. This enables the tautness necessary to a good knot to be maintained while threading the line through the coils.

A longitudinal slot 37 is disposed along the entire length of the back of the winding needle 19 in alignment with ridge 34 for positioning the winding needle against the shank of the fishhook.

In operation, the base or vise 10 in its open position is held in one hand. The pull bar 17 is set in channel 14 so that the leader grip 29 and the leader guide tab 31 are well above the top of said pull bar guide 14.

Referring to Fig. 1, one end 38 of the leader 39 is pushed up into the tube of the leader grip 29. The remaining portion of the leader is pulled straight up and the leader wedged in slot 30. The said remaining portion of the leader 39 is released and set against the guide tab 31. The pressure of the leader against guide tab 31 created by the leader yieldingly resisting bending will keep the said remaining portion of the leader in place and end 38 of the leader positioned in slot 30.

With the free hand, the pull bar 17 is drawn down into channel 14 a distance sufficient to bring the top of the winding needle below the anticipated height of the eye 41 of the fishhook 43 when said fishhook is in place. The fishhook is placed in the vise by placing the shank 42 in slot 22 and drawing the fishhook up until the point of the barb 44 engages one of the slots 28 in flange 26 or 27 according to the set of the point.

The two sides 11 and 12 of the vise are pressed together and the open side of clamp 20 is swung toward the vise as far as it will go, holding sides 11 and 12 together and locking the fishhook in its position.

The pull bar 17 is pushed up along the shank of the fishhook until the top of prong 36 is immediately below the bottom of the fishhook eye 41. If the fishhook shank 42 is not already in slot 37, it is placed in said slot. As shown in Fig. 1, the said remaining portion of the leader 39 is drawn up tautly along the right-hand side of the vertical ridge 34 and bent down into slot 35 at the top of the ridge. The leader 39 is continued around the top prong 36 and the shank 42 of the fishhook 43 to form a fish coil 45. As the leader is brought around said prong, the leader is pulled downward far enough so that coil 45 will come around the lower prong 33 also. Successive coil 46 plus as many more as desired are then made

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downward. Care must be taken that the coils are successive and not lapped.

When the desired number of coils or windings has been made, the index finger of the hand holding the vise or base 10 is pressed against the coils. The free end 48 of the leader 39 is grasped near the tip by the other hand and inserted behind the windings or coils by pushing it up in the groove 49 formed by the intersection of the vertical ridge 34 and the portion of the prong 33 to the left of said vertical ridge until it passes through the top winding 45. Said free end 48 is then taken by the hand not holding the vise and drawn completely through the windings or coils.

The index finger of the hand holding the base is now removed, the leader being held taut by the other hand, the bottom end of the pull bar 17 protruding below the pull bar guide 14 attached to base 10 is grasped by the hand holding the base 10 with the thumb against the bottom of the pull bar guide 14. The free end 48 of the leader is held taut and the pull bar 17 is pulled through the bottom of the pull bar guide 14 by pressing the thumb of the hand holding the base 10 against the bottom of the pull bar guide. The windings will slide off the prong 32 of the winding needle and tighten around the shank 42 of the fishhook.

The clip 20 holding the sides of the base 10 is swung away from said base releasing the sides 11 and 12 and the fishhook 43 with the leader 39 attached to the shank 42 is removed.

I claim:

A device for facilitating the knotting of a line on a shank comprising a vise for rigidly clamping the shank

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in a fixed position with the knot retaining portion exposed, a member slidably mounted on said vise having an elongated extension adapted to slide along said knot retaining portion of the shank fixed in said vise, said elongated member adapted to be held in an adjusted position relative to said fixed shank, said member having line clamping means positionable adjacent said knot retaining portion on one side thereof, and line guiding means positionable adjacent said knot retaining portion on the opposite side thereof, whereby a line clamped in said line clamping means with a portion retained adjacent said shank by said guide means may be loosely coiled about said member to enclose said knot retaining portion of said shank, and said retained portion of the line, such that the free end portion of the line may be passed through the coils, sliding movement of said elongated member along said fixed shank functioning to draw said coils taut about said shank and said retained portion of said leader, to complete said knotting.

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