April 4, 1950 W. M. HOFFMAN 2,502,846

LINE GUIDE TIP FOR FISHING RODS AND THE LIKE

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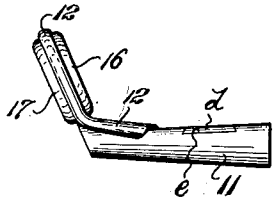


Fig. 1

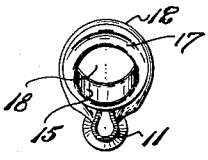


Fig. 2

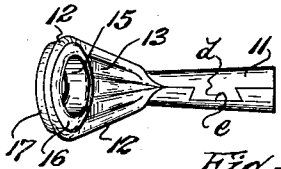


Fig. 3

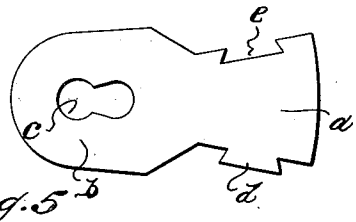


Fig. 5

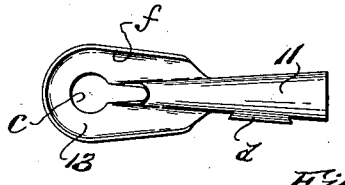


Fig. 6

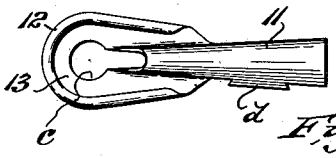


Fig. 7

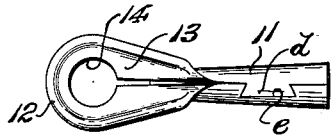


Fig. 8

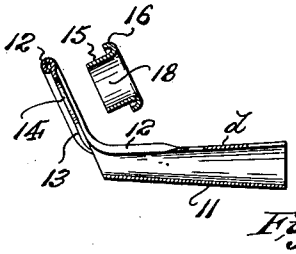


Fig. 10

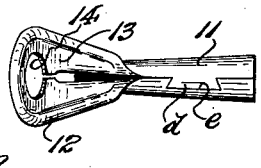


Fig. 9

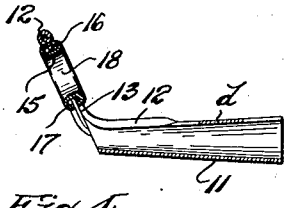


Fig. 4

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LINE GUIDE TIP FOR FISHING RODS AND THE LIKE

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2 Claims. (Cl. 43—24)

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This invention relates to an improved construction of line guide tip for use on fishing rods and for similar uses.

The invention has for an object to provide a novel construction of all metal line guide tip of simple, strong and durable character comprising a tip socket and perforate eye supporting bracket integrally formed from a single blank of sheet metal; said eye supporting bracket being provided with a metallic tubular line guide eye member mounted within the opening of said bracket.

The invention has for another object to provide, in an all metal line guide tip, a novel tip socket and eye supporting bracket structure which is integrally formed from a single blank of sheet metal, a portion of the blank being rolled upon itself into a tapered tubular sleeve to be telescoped over the tip of a fishing rod or the like to which the device is to be applied whereby to mount the latter thereon; the meeting edges of said sleeve being provided with cooperative male and female interlocking elements adapted to secure the seam of said sleeve in closed condition, and thus insuring the integrity of the completed tip socket and eye supporting bracket formation.

Other objects of the invention, not at this time more particularly enumerated, will be understood from the following detailed description of the same.

An illustrative embodiment of this invention is shown in the accompanying drawings, in which:

Fig. 1 is a side elevational view, Fig. 2 is an end elevational view, Fig. 3 is a top elevational view, and Fig. 4 is a longitudinal sectional view of the novel line guide tip made according to the invention.

Fig. 5 is a plan view of a blank of sheet metal from which the tip socket and eye supporting bracket of the device are formed.

Figs. 6 and 7 are bottom elevational views showing initial stages in the development of the tip socket and eye supporting bracket from the blank of Fig. 5.

Figs. 8 and 9 are top elevational views showing finishing stages in the development of the tip socket and eye supporting bracket from the blank of Fig. 5.

Fig. 10 is a longitudinal sectional view of the finished tip socket and eye supporting bracket, with an eyelet member and the eye supporting member juxtaposed preparatory to mounting the former in the latter.

Similar characters of reference are employed in the above described views to indicate corresponding parts.

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Referring to the drawings, the tip socket and eye member supporting bracket of the line guide tip is produced from a single blank of suitable non-corrosive sheet metal, preferably of stainless steel. Said blank (shown in Fig. 5) comprises a portion *a* having inwardly inclined margins, from which portion *a* the tapered tip socket formation is produced, and a portion *b* from which the eye member supporting bracket is produced, the latter portion having an opening *c* in its medial part. One margin of the portion *a* is provided with a dovetail shaped male element or locking lug *d*, and the opposite margin of said portion *a* is provided with an indented dovetail shaped female element or locking notch *e*. Said blank is subjected to a series of shaping operations for the accomplishment of which suitable dies are provided. In carrying out these shaping operations, the portion *a* of the blank is down folded upon itself along its medial longitudinal axis and between the opening *c* and its outer end to a substantially half round shape in cross section, whereby to start the formation of the tapered tip socket 11 of the device, and at the same time marginal parts of the portion *b* of the blank are upturned to form an upstanding peripheral flange *f* (see Fig. 6). The next stage of the forming operation comprises incurling the peripheral flange *f* of said portion *b* of the blank, whereby to provide a rounded marginal bead 12 defining the eye member supporting bracket 13 (see Fig. 7).

The blank having attained the formation above described and shown in Fig. 7, the same is turned over and submitted to an operation which closes together the marginal edges of the portion *a* of the blank so as to complete the tapered tubular tip socket 11, such operation causing the locking lug *d* to enter and interlock with the notch *e*, thus locking the seam of the tip socket against opening, so as to thereafter prevent deformation of the tip socket. At the same time, the portion *b* of the blank is squeezed laterally to close the medial part of the same and to so dispose the inner rearward wing-like part thereof substantially at a tangent to the external surface of the tip socket at the same side of the latter, thus forming the eye member supporting bracket 13 (see Fig. 8), whereafter the opening of said bracket is enlarged to provide a receiving opening or eye 14 of proper size for the reception of an eyelet member, as will subsequently appear.

After obtaining the formation shown in Fig. 8, the free end portion of the eye member supporting bracket 13 is upturned to project angularly upward from the forward end of the tip socket

11, preferably at an angle of 25 degrees relative to the longitudinal axis of said tip socket (see Figs. 9 and 10).

From the above it will be obvious that the combined socket tip and eye member supporting bracket formation comprises an integral metallic structure which is strong and rigid, and one having its component parts so formed, related and assembled that all necessity for use of soldering, brazing or welding operations in the production thereof is avoided. Furthermore the eye member supporting bracket part is strongly reenforced against accidental distortion by the provision of the peripheral bead which surrounds the external margins thereof, and which, where they merge with the tip socket part also reenforce the same against displacement from desired angular projection from said tip socket part.

After the tip socket and eye member supporting bracket structure is produced, as above described, it is ready to receive application thereto of a tubular eyelet member 15 which is initially formed at one end only with a curled or rolled external annular shoulder or head 16. This eyelet member 15 is also made of non-corrosive metallic material, and preferably of stainless steel. The external diameter of the tubular body of said eyelet member 15 corresponds to the internal diameter of the opening or eye 14 of the eye member supporting bracket 13, so as to be capable of being passed through the latter. Said eyelet member 15 is passed through said opening or eye 14 until the initially formed shoulder or head 16 abuts the rearward face of said eye member supporting bracket 13, whereupon the free end of said eyelet member 15, which protrudes beyond the forward face of said eye member supporting bracket, is curled or rolled to form a second external annular shoulder or head 17, thus operatively assembling and uniting said eyelet member in supported connection with said supporting bracket 13, and thereby completing the novel line guide tip of this invention. The tubular eyelet member 15, with its rounded out curled shoulders or heads 16 and 17, provides, by its endwise open passage 18, the eye of the line guide tip through which a line desired to be guided thereby may be passed for movement back and forth therethrough; and since the margins of said passage 18 are defined by the curved or rounded surfaces of the shoulders or heads 16 and 17, all sharp edges are eliminated, and consequently all risk of abrading or other injury and resultant weakening of a line served by the guide tip is avoided.

It will be obvious that the tapered tip socket is adapted to receive the tip end of a fishing rod or the like (not shown) and so as to be affixed

to the latter in operative relation thereto. The line guide tip, being of all metal construction, possesses no parts subject to fracture, loosening or becoming distorted or displaced, and consequently the line guide tip is well adapted for its intended purpose, and is of such character as to assure a long life of efficient service in use.

Having now described my invention, I claim:

1. A line guide tip comprising an integral body formed from sheet metal to provide a longitudinal tubular tip socket and a perforate eye member supporting bracket upturned from the forward end portion of said tip socket for angular extension therefrom, said bracket having rolled free marginal edges adapted to stiffen and reenforce the same, and a tubular metallic eyelet member extending through said perforate bracket, the respective ends of said eyelet member terminating in external annular beads, having a roll of substantially 180 degrees respectively disposed for edgewise abutment against the opposite faces of said bracket, the beads of the eyelet member being disposed in contiguous relation to the rolled edge of the bracket.

2. A line guide tip comprising an integral body portion formed from sheet metal to provide a longitudinal tip socket and a perforate eye member supporting bracket, rearward side portions of said bracket being squeezed laterally inward to close the medial part of the same and form a rearwardly tapering wing-like structure disposed substantially at a tangent to the external surface of the tip socket, the forward end portion of said bracket being upturned for angular extension from said rearward part, said bracket having rolled free marginal edges adapted to reinforce the same and to present smooth rounded surfaces for line contact, and a tubular metallic eyelet member extending through said perforate bracket, the respective ends of said eyelet member terminating in external annular beads respectively disposed to abut opposite faces of said bracket.

WILLIAM M. HOFFMAN.

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