

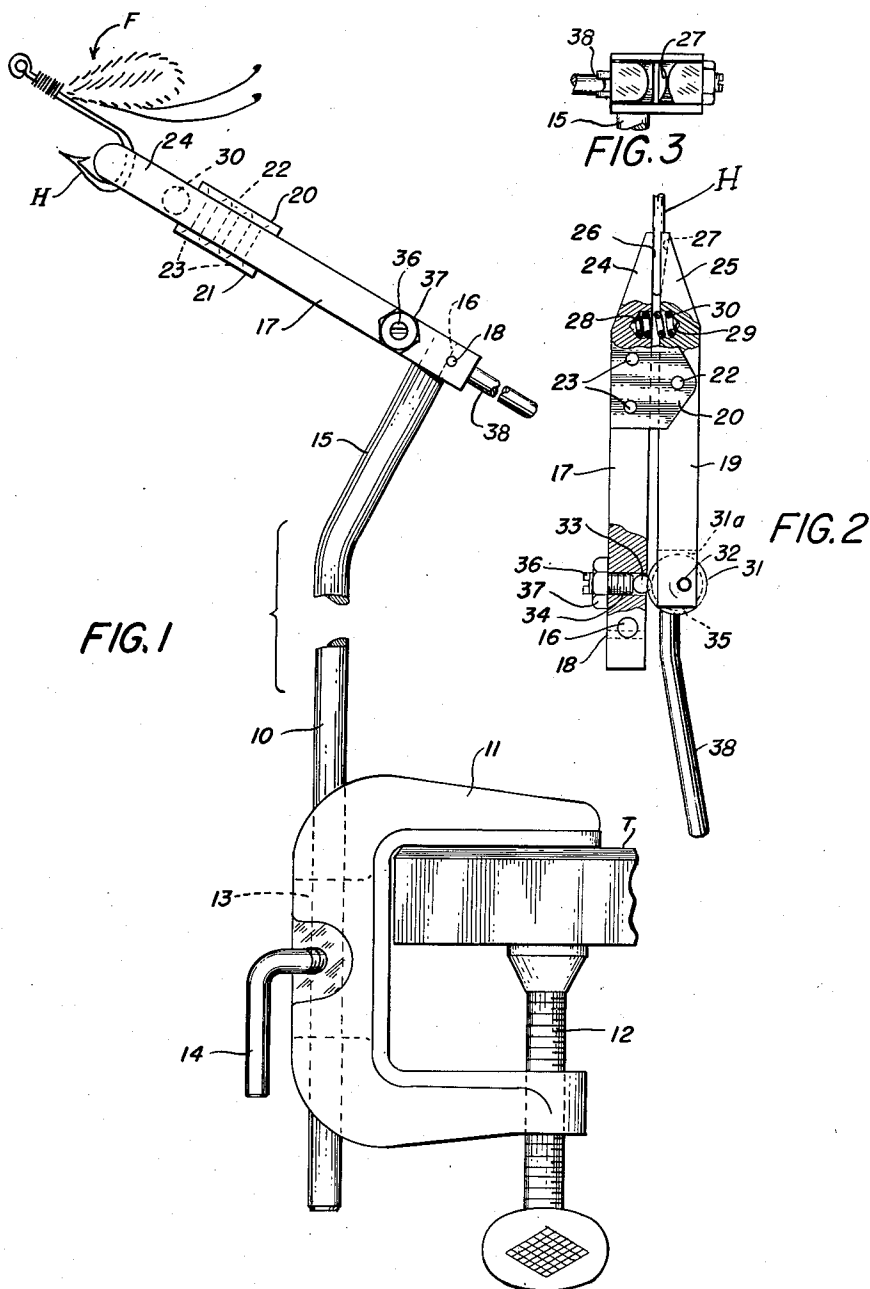
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FLY-TYING VISE

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FLY-TYING VISE

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1 Claim. (Cl. 81—25)

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This invention relates to clamps, and more particularly to a vise for efficiently holding a fish hook during the operation of tying a fly thereon.

One object of this invention is to provide a device of the above nature in which the vise jaws are actuated by an eccentric cam member at the rear ends of the jaws, whereby they may be operated rapidly and efficiently, and the fly-tying operation will not be obstructed.

Another object is to provide a device of the above nature in which the eccentric cam member operates against an adjustable abutment, whereby the jaws may be easily adjusted to clamp hooks of different thicknesses.

A further object is to provide a device of the above nature which will be simple in construction, inexpensive to manufacture, easy to install and manipulate, compact, ornamental in appearance, and very efficient, reliable, and durable in use.

With these and other objects in view, there has been illustrated on the accompanying drawing one form in which the invention may conveniently be embodied in practice.

In the drawings,

Fig. 1 is a side view of the improved fly-tying vise as it appears during use.

Fig. 2 is a plan view of the vise jaws, partly in section, showing the eccentric cam member in clamping position.

Fig. 3 is a front end view of the same, as seen from the upper left of Fig. 1.

Referring now to the drawings, in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates an angular upright rod which is supported by means of a holding device in the form of a C-clamp 11 which has a clamp screw 12 adapted to hold the clamp upon the edge of a table, shelf or other horizontal member T. The C-clamp 11 is provided with a vertical bore 13 within which the rod 10 is fitted, and has a set screw 14 which is adapted to adjustably hold the upright rod 10 in its forward position.

The rod 10 has an upper portion 15 which is rearwardly inclined and has a reduced cylindrical extremity 16 which is locked in the apertured rear end of a stationary jaw 17 by means of a key-pin 18.

It will be thus seen that the stationary jaw 17 is carried in an inclined forwardly-extending position at right angles to the upper inclined portion 15 of the upright rod 10.

The vise includes a short movable jaw 19 which is attached to a central portion of the stationary jaw 17 by a pivot means in the form of a pair

of plates 20, 21 which carry a pivot pin 22 and are secured to the upper and lower faces, respectively, of the jaw 17 by means of a pair of rivets 23 passing therethrough. The jaws 17, 19 are of any suitable material such as hard steel, and are preferably provided with a dull finish, whereby annoying reflection of light will be avoided.

The jaws 17, 19 have front end portions 24, 25 which have tapered outer sides and rounded ends. The movable jaw 19 is provided with a concave inner longitudinal gripping groove 27, while the stationary jaw 17 has a flat gripping surface 26. It will be understood that either or both of the front end jaw portions 24, 25 may be provided with concave grooves such as the groove 27.

The opposed surfaces of the front end portions 24, 25 are provided just forwardly of the plates 20, 21, with a pair of transverse bores 28, 29 which serve as sockets for a coil spring 30, by which the portions 24, 25 will be urged apart.

In order to clamp a fish hook H between the end portions 24, 25, provision is made of a circular cam member 31 which is eccentrically pivoted in a slot 31a in the rear end of the movable jaw 19 by means of a pin 32. The cam member 31 is adapted to coact with an abutment in the form of a ball bearing 33, preferably of steel, which is movably held in a tapped bore 34 in the stationary jaw 17. The periphery of the cam member 31 is provided with a groove 35 having the same cross sectional curvature as the surface of the ball 33, whereby a good bearing engagement may be obtained between the ball 33 and the cam member 31, and friction will be minimized.

The ball 33 is held in the bore 34 by means of an adjusting backing screw 36 which is located in the outer end of the tapped bore 34, whereby the position of the vise jaws 17, 19 may be adjusted as desired.

Provision is made of a jam nut 37 engaged on the outer portion of the adjusting screw 36, whereby said screw will be locked in adjusted position.

The cam member 31 is provided with a radially-extending handle in the form of a lever 38, which is bent to provide an angular portion, so that when the vise jaws 17, 19 are in position to clamp the fish hook H, the handle 38 will be disposed substantially in alignment with said jaws and will not obstruct the movements of the operator during the operation of tying a fly F upon the hook H.

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Operation

In operation, the C-clamp 11 will first be attached to the edge of the table T by means of the clamp screw 12, whereupon the upright rod 10 will be inserted in the vertical bore 13 and supported in the desired elevated position by means of the set screw 14.

The adjusting screw 36 will then be turned to hold the ball 33 in such a position that the eccentric cam member 31 will produce the desired clamping action of the forward jaw portions 24, 25 upon a hook H therebetween. It will be understood that the jam nut 37 may be tightened to prevent an accidental change in the adjustment of the screw 36, and that further adjustment of this screw will be unnecessary during the use of the device, unless it is desired to clamp fish hooks H of a different size.

One advantage of this invention is that the fish hook H may be clamped in fly-tying position by a single motion of the handle 38 and may be released by a single movement of the handle in the reverse direction.

A further advantage is that the vise will firmly hold fish hooks in a convenient position so that feathers, hackle, and other desired fly material may be attached thereto by cement, thread, or any other desired means.

While there has been disclosed in this specification one form in which the invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosure, but may be modified and embodied in various other forms without departing from its disclosed function. In short, the invention includes all the modifications and embodiments coming within the scope of the following claim.

Having thus fully described the invention,

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what is claimed as new and for which it is desired to secure Letters Patent is:

In a fly-tying vise, a stationary jaw, a movable jaw pivoted thereto, and means for clamping a hook between the outer end portions of said jaws, said clamping means comprising an eccentric cam member rotatably mounted on the other end of one of said jaws and an adjustable abutment comprising a ball bearing in a tapped bore located in the other end of the other of said jaws, said cam member having a peripheral groove engaging said ball bearing, and said bore having a screw adjustably mounted therein to serve as a backing for said ball bearing.

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