Nov. 6, 1956 H. L. THOMPSON 2,769,607

FLY-TYING VISE

Filed Nov. 12, 1952

FIG. 2.

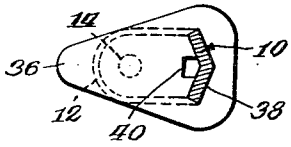


FIG. 4.

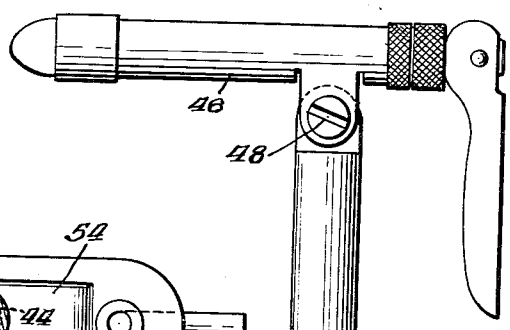
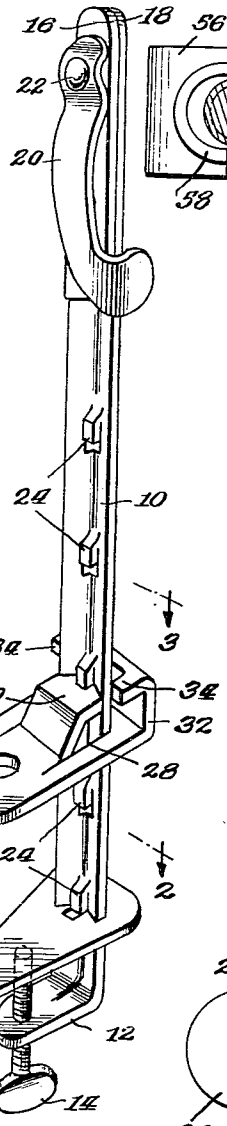


FIG. 1.



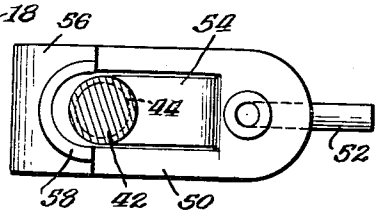


FIG. 5.

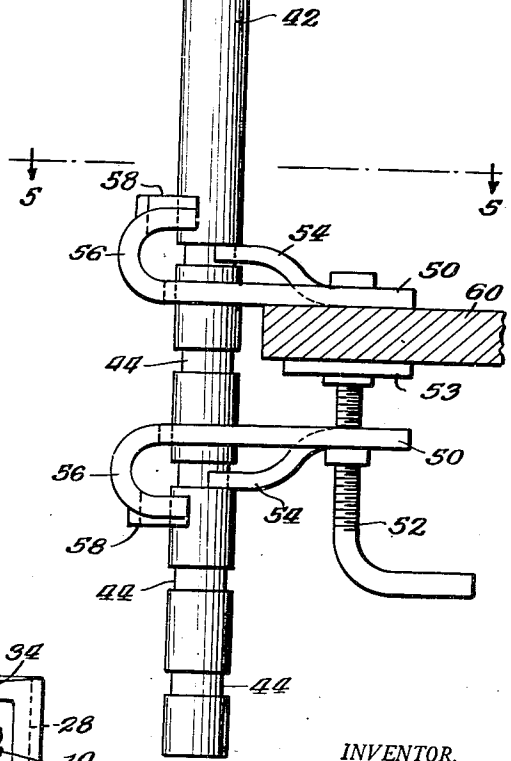
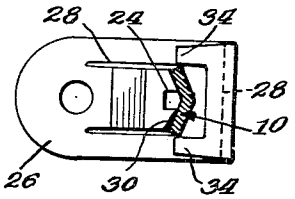


FIG. 3.



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FLY-TYING VISE

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2 Claims. (Cl. 248—226)

My invention relates to vises and similar devices.

My invention relates more particularly to vises of the type chiefly used for making artificial fishing flies and lures.

Fly-tying devices of the type which are at present on the market include a pedestal bench clamp, a standard, vertically adjustable in the clamp, and a vise attached to the top of the standard, the vise being usually angularly adjustable on the standard.

My invention relates to vises of this general type, but more particularly it concerns the provision of improved means for attaching the vise to a suitable support, such as the edge of a bench or table.

Ordinarily these vises are attached by various means to the upper end of a vertical shaft or standard, and this standard in turn is held by some form of clamp to any rigid support. This clamp often consists of a horizontal member or jaw formed to rest upon the top surface of a supporting table while a somewhat similar integral member protrudes parallel with the first member under the table edge and carries a vertical screw located to co-act with the first jaw to force it into firm contact with the supporting table edge.

Obviously, such a clamp is limited to use on supports of a thickness that will enter between the two horizontal members of the clamp, and the clamp screw must be long enough to reach from the lower member to the bottom of the thinnest support that will ever be encountered.

The principal object of the present invention is to provide an improved vise having a strong, sturdy adjustable clamp means capable of long, hard and continuous use without becoming broken or out of order.

A further object of the present invention is to provide in a fly-tying vise simple and inexpensive means for varying the distance between the two clamping members on the vise standard itself, and for causing them to lock firmly in predetermined positions on the standard so that even very thick supports may be placed between them, or they may approach each other very closely to accommodate very thin supports.

A further object of the invention is to provide an improved vise wherein the jaws of the clamping member may be placed either near the top or the bottom of the standard to adjust the working height of the vise to suit the user.

Another object of the present invention is to provide cooperating means on both the standard and the clamping member for fixedly holding the clamping member in a desired spaced relation to the vise and also to prevent rotation of the standard in the clamp.

A further object of the invention is to provide improved vise clamp means capable of desired adjustable positioning on the vise standard to compensate for supports of various thicknesses.

A further object is to provide a pair of movable clamp jaws for supporting a vise standard, said jaws being duplicates and capable of adjustable attachment to the vise standard.

A further object of the invention is to provide in a fly-tying vise of the type described, improved clamp jaws easily and cheaply made from sheet metal stampings.

Other objects and advantages will be more apparent from the following description wherein reference is had to the accompanying drawings, upon which:

Fig. 1 is a front perspective view of one form of fly-tying vise embodying the features of my invention;

Fig. 2 is a cross-sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a similar cross-sectional view taken on line 3—3 of Fig. 1;

Fig. 4 is a side elevational view of a form of fly-tying vise having a cylindrically shaped standard embodying the features of my invention; and

Fig. 5 is a plan sectional view taken on line 5—5 of Fig. 4.

In the embodiment of the invention shown in Figs. 1 to 3 inclusive, I have shown a fly-tying vise which may include a vertical standard **10** having a bottom end **12** bent at right angles thereto to receive a clamping screw **14**. The upper end of the standard may be formed with the vise jaws **16** and **18** that are separated or clamped together to hold a fish hook by means of a combined operating lever and cam **20** which is mounted upon a suitable pivot **22** near the top of the vise jaws.

The standard for this type of fly-tying vise is preferably made of sheet metal formed to the V-shape shown and provided throughout its length with a plurality of pressed-out projecting lugs **24** spaced at intervals throughout most of the length of the standard.

The means for fastening the vise to a support such as the edge of a bench or table may include a flat jaw member **26** which is provided with an opening **28** so that it may be slidably moved upon the standard **10**. I also pierce and press up and forward a V-shaped tongue portion **30** to cooperate with the projections **24** in a manner which will be hereinafter described. The back end of the jaw **26** is preferably bent upwardly as shown at **32**, and then forward to provide a pair of ear members **34** which are adapted to loosely engage the edges of the standard **10** to prevent partial rotation on a horizontal axis, cramping the edges of the opening **28** against the adjacent edges of the standard **10** while adjusting the clamp to a support.

The jaw **26** may be set at any desired projection **24** or between them, according to the thickness of the support to which the vise is to be attached, and by means of the clamping screw **14**, the vise may be firmly attached to a support of any desired thickness. The forward end of the jaw **26** is tilted downwardly to permit the tongue **30** to clear a lug **24** whenever the jaw is being shifted past one of the lugs. The upward thrust of the thumb screw **14** acting through any supporting member effects a cramping effort between the end of the tongue **30** and the back of the opening **28**, which due to the great leverage applied by the length of the clamp and the considerable pressure urging the clamp upward by the thrust of the clamp screw, generally suffices to cramp the clamp securely to the standard **10** by friction alone, but the projections **24** are provided as safety stops in case of some surface condition which allows the clamp to slip.

Fly-tyer's vises for beginners are usually inexpensive so they may be sold at a very low price. For this reason, the costly swivel pad used on most clamp screws is omitted, the bare end of the screw being generally considered sufficient. However, if the vise is secured to a soft support such as a wooden table or the thin metal or other material of which card tables are made, the screw soon wears a depression in the material and requires constant retightening, which soon defaces the support without improving the solidity of the attachment of the vise.

To overcome this I provide a metal pad **36**, provided with a stamped opening **38**, which may be slidably mounted on the standard **10**. The pad also has an opening **40** which permits it to be moved past the projections **24** on the standard. The jaw **26** and the metal pad **36** may of course be mounted on the standard by being passed over the bottom end **12** of the same before the clamping screw **14** is connected thereto. The pad **36** may be generally similar in shape to the jaw **26**, and thus provides against the bottom of a support a larger distribution of the pressure, thus serving to protect the material of the support and providing a more effective fastening.

With the construction which I have described, a very effective clamp means for fastening the standard to any support has been provided. It can be seen that the ability to adjust both the metal pad and the jaw axially of the standard permits the movement of the same to accommodate a support of any thickness, within limits.

In the embodiment of the invention which I have shown in Figs. 4 and 5, I have shown a fly-tying vise which has a cylindrical standard **42** provided throughout its length with spaced grooves **44**. The fly-tying vise **46** may be mounted at the upper end of the standard by a suitable screw member **48** which fastens the body of the vise to the top of the standard and also permits angular adjustment of the same as desired.

I provide a pair of similarly shaped clamping jaw members **50**, the lower jaw member being provided with a clamping screw **52**. Each of the jaws **50** is formed with a tongue member **54** adapted to engage in one of the grooves **44** or the surface of the standard **42**, as the grooves in actual practice are so shallow that the angle of the clamp jaws **50** with the standard **42** is not altered enough to impair its function whether the tongue bears on the surface of **42** or at the bottom of one of the shallow grooves.

The jaws **50** are also provided with an upwardly turned portion at the back **56** which carries two substantially horizontal projections to form a fork loosely embracing the sides of the standard **42** to prevent accidental partial rotation on a horizontal axis from cramping the edges of the opening in clamp **50** against the standard **42** when being adjusted to clamping position on the support.

It is obvious that clamp screw **52** is capable of being forced against support **60**, and through support **60** against the upper clamp, causing a cramp between the end of the tongues **54** and the ends of the openings in the clamps **56** that will not only lock the standard against vertical movement, but against rotation also. The increased width of the fork portion **58** is merely a means to prevent the fork from dropping into the grooves **44** while adjusting. In this construction the collars **58** serve the same purpose as the projections **24** and ears **34** of the other embodiment of the invention. The grooves **44** being preferably a screw

length apart, they insure a support capacity equal to the distance between the upper jaw and the top of the pad **53** on the thumb screw **52** when engaging the grooves farthest apart.

While I have illustrated and described two embodiments of the invention, it will be apparent to those skilled in the art that changes and modifications may be made in its application. The vise standard may of course be of any conceivable size or shape and the clamping jaws may be made to conform to the same. Therefore, I do not wish to be limited to these exact details; rather what I desire to secure and protect by Letters Patent of the United States is:

1. A standard for a vise, said standard being generally V-shaped in cross-section and including a clamping jaw vertically slidable thereon, projections on the front side of said standard, said jaw having a tongue adapted to engage beneath a desired projection and a clamping screw mounted at the lower end of said standard to fasten the same to a support positioned between said jaw and the end of said clamping screw, said clamping jaw also having a pair of ears above the tongue adapted to loosely engage the edges of the standard to restrict rotation on a horizontal axis cramping the jaw upon the standard when urged in one direction, said jaw being a sheet metal stamping pierced with an opening to embrace said standard.

2. A standard for a vise, said standard being generally V-shaped in cross-section and having a bottom end turned at right angles thereto, a clamp jaw having an opening therethrough to slidably receive said standard, a row of projections on the front side of said standard, said clamp jaw having a tongue adapted to engage beneath a desired projection, a flat pad member slidably mounted on said standard and a clamping screw mounted in the bottom end of said standard and adapted to fasten the standard to a support between the clamp jaw and said flat pad member, said clamp jaw having a pair of ears above the tongue adapted to loosely engage the edges of the standard to prevent partial rotation on a horizontal axis cramping upon the standard when urged in one direction.

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