

[54] **NEEDLE THREADER**

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[56] **References Cited**

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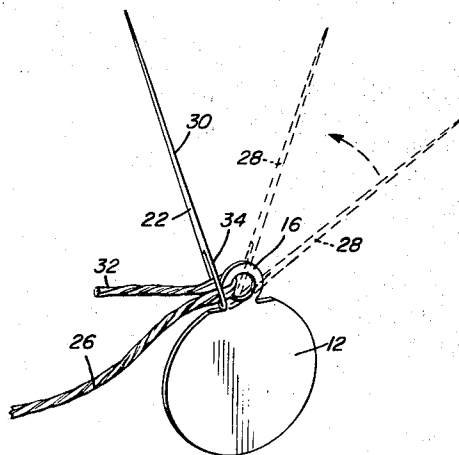
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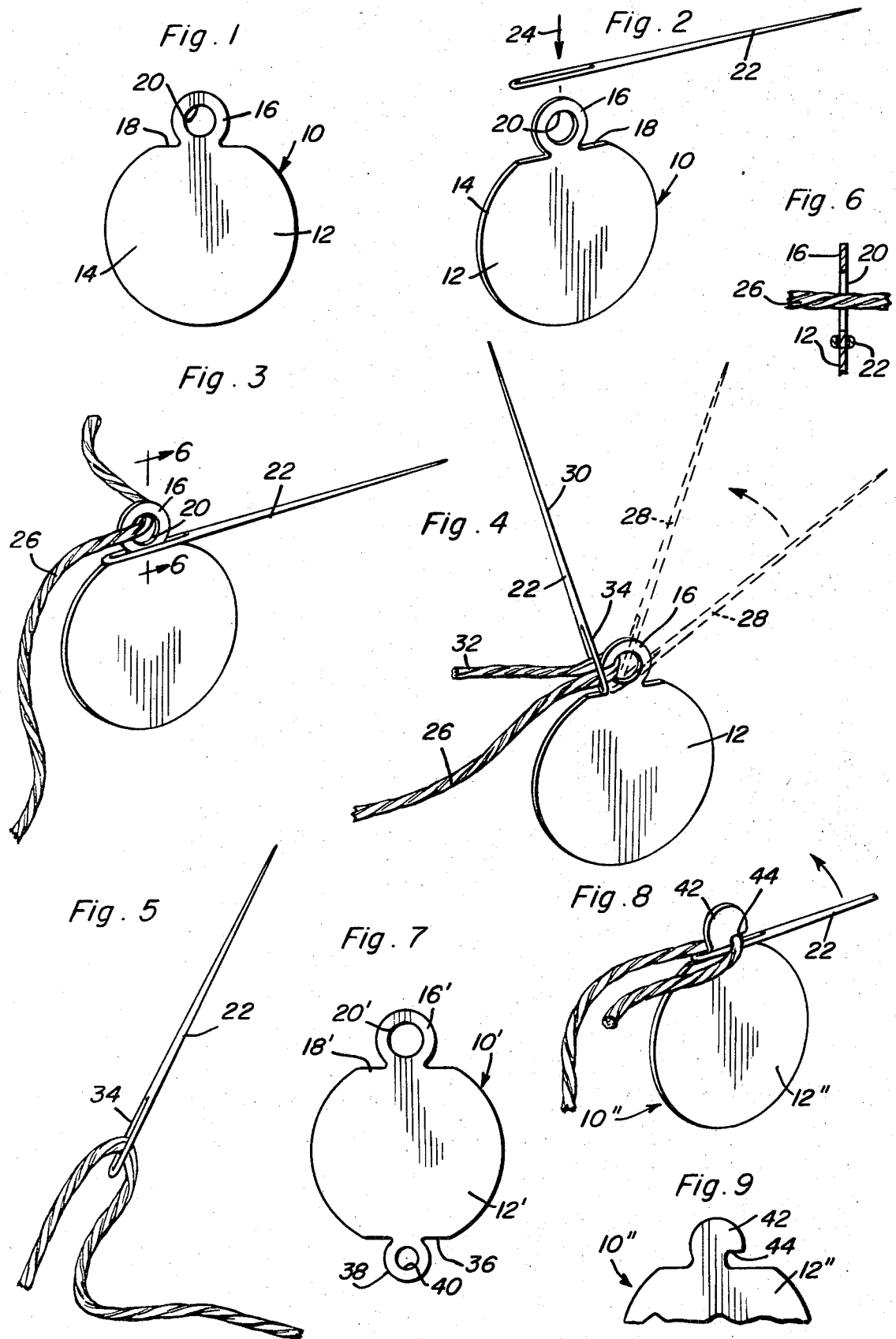
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[57] **ABSTRACT**

A body defining a handle portion is provided and includes a thin plate-like projection extending outwardly of one marginal edge portion of the body. The projection has an opening formed therethrough of a size to receive a strand of thread therethrough and the projection is sufficiently thin and of a length and width to be inserted through the eye of a needle with at least a portion of the opening formed through the extension displaced through the needle eye.

8 Claims, 9 Drawing Figures





NEEDLE THREADER

This invention relates to a needle threader which may be used in threading a needle with yarn or other bulky thread. The needle threader enables the threading process to be quickly accomplished with a minimum of effort and without the requirement of more than minimum dexterity.

The invention has been primarily designed for use in threading tapestry needles used with yarn and other bulky threads. However, it will be apparent that the needle threader may also be utilized in conjunction with other types of needles.

In needlepoint, the choice of yarn and needle is governed by the size of the mesh of the canvas being used. The yarn should be thick enough to completely cover the mesh of the canvas and yet the needle should be small enough to pass through the openings in the canvas without loosening or spreading the weave of the canvas. Accordingly, the yarn used must be tightly compressed where it passes through the needle to the extent that it is extremely difficult to thread the needle with yarn of the desired width.

Also, in crewel embroidery the needle should be of a diameter that will make holes in the fabric only of a size that will accommodate the thickness of the yarn used. Hereagain, difficulty is encountered in threading the needle.

The threader of the instant invention may be inexpensively manufactured out of aluminum, although it can be formed of any sheet metal or other suitable sheet material.

Heretofore several needle threaders have been designed which employ a loop of fine gauge wire that is first inserted through the eye of a needle. After the loop is passed through the eye of the needle the thread is dropped through the loop and the eye of the needle is then pulled out over the loop to thread the needle. This form of threader is apparently wholly adequate when utilizing fine sewing thread. However, when this type of needle threader is used in conjunction with thick yarn, it is very difficult, and in some cases impossible, to pull the needle out over the loop without breaking the loop due to the force required to slip the eye of the needle off the loop after the yarn has been passed through the loop.

Although the threader of the instant invention defines a type of loop which may be inserted through the eye of a needle, the threader of the instant invention is constructed of thin sheet material. Accordingly, while the thickness of the threader of the instant invention may be no more than the thickness of the fine gauge wire of a conventional threader, the threader of the instant invention is of considerably greater dimension in the plane of the loop of the threader whereby the strength of the portions of the threader of the instant invention which define the opening through which thread is passed may be many times the strength of the aforementioned fine gauge wire of conventional threaders.

The main object of this invention is to provide a threader which may be utilized effectively and efficiently and with little effort to thread a tapestry or other similar needle with yarn.

Another object of this invention, in accordance with the immediately preceding object, is to provide a needle threader which may be readily constructed of vari-

ous sizes so as to be specifically adapted for use with various types and sizes of needles and thread.

A still further object of this invention is to provide a needle threader which may be used even by persons having little dexterity or other persons having physical impairments.

A final object of this invention to be specifically enumerated herein is to provide a needle threader in accordance with the preceding objects which will conform to conventional forms of manufacture, be of simple construction and easy to use so as to provide a device that will be economically feasible, long lasting and relatively trouble free in operation.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

FIG. 1 is a side elevational view of a first form of needle threader constructed in accordance with the present invention;

FIG. 2 is an exploded perspective view of the first form of needle threader with an associated needle to be threaded positioned adjacent the needle threader;

FIG. 3 is a perspective view illustrating an intermediate step in threading a needle through the utilization of the needle threader and with the threader and needle illustrated in perspective;

FIG. 4 is a perspective view illustrating the next to the last step used in threading a needle;

FIG. 5 is a perspective view of a threaded needle;

FIG. 6 is an enlarged fragmentary vertical sectional view taken substantially upon the plane indicated by the section line 6—6 of FIG. 3;

FIG. 7 is a side elevational view of a second form of threader adapted to be utilized in conjunction with needles of two different sizes;

FIG. 8 is a perspective view of a third form of needle threader constructed in accordance with the present invention; and

FIG. 9 is a fragmentary enlarged side elevational view of the upper portion of the needle threader illustrated in FIG. 8.

Referring now more specifically to the drawings, the numeral 10 generally designates the first form of threader of the instant invention. The threader 10 includes a body 12 having a main portion 14 and a thin plate-like projection 16 extending outwardly of one marginal edge portion 18 of the main portion 14. The projection 16 is generally circular and has a central concentric opening 20 formed therethrough. The projection and main portion 14 of the body 12 are integrally formed from a single piece of sheet material such as aluminum. Also, it may be seen that the marginal portion 18 defines a straight line extending along a chord of the otherwise circular body 12.

When using the threader 10, a needle 22 is displaced downwardly over the projection 16 in the manner illustrated by the arrow 24 in FIG. 2 until the needle 22 is positioned as illustrated in FIG. 3. Then, a length of yarn 26 is passed through the opening 20 and the needle 22 is thereafter swung upwardly and over the projection 16 from the position illustrated in FIG. 3 of the drawings, through the phantom line positions designated by the reference numeral 28 in FIG. 4 of the drawings and to the solid line position designated by

the reference numeral 30 in FIG. 4 of the drawings with the marginal edge portion 18 acting as a fulcrum. Then, the needle 22 has its eye portion slid along the yarn 26 to the left until the end 32 of the yarn 26 passes through the eye 34 of the needle 22. At this point, the needle 22 is fully threaded and may be moved away from the projection 16.

With attention now invited more specifically to FIG. 7 of the drawings, there will be seen a second form of threader referred to in general by the reference numeral 10' and which is substantially identical to the threader 10, except that the body 12' includes a second straight marginal portion 36 opposite the marginal portion 18' and outwardly from which a smaller projection 38 having a smaller opening 40 formed therethrough extends. Of course, the projection 16' of the threader 12' is adapted to be used in conjunction with needles having larger eye portions than the needles to be used in conjunction with the projection 38.

With reference now more specifically to FIGS. 8 and 9 of the drawings there will be seen a third form of threader referred to in general by the reference numeral 10'' and which includes a projection 42 similar to the projection 16 but which is not provided with a central opening. However, the projection 42 has a notch 44 formed therein immediately adjacent the body 12'' of the threader 10'' and the notch 44 serves the same purpose as the opening 20 after the needle 22 has been inserted down over the projection 42, see FIG. 8.

Each of the three forms of threaders disclosed hereinbefore are capable of efficiently and quickly threading a tapestry needle with thick yarn in a manner which is believed to be obvious from the foregoing description. Furthermore, each of the threaders may be readily manufactured at bare minimum costs out of any suitable plate-like material.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. In combination, a body including a main portion and a thin plate-like projection extending outwardly of one marginal portion thereof and having a rounded outer periphery, said projection having an opening

formed therethrough of a size to receive a strand of thread therethrough, at least the peripheral portion of said opening defining the outer portion thereof being arcuate and opening inwardly toward said body, said projection being sufficiently thin and of a length and width to be inserted through the eye of a needle with at least the outer peripheral portion of said opening displaced through said eye, said body marginal portion including one edge portion adjacent said projection defining a fulcrum surface against which the terminal end of the eye end of a needle, through whose eye said projection extends, may be abutted and about which the remote pointed end of the needle may be swung away from said body to displace the eye portion of the needle off said extension.

2. The combination of claim 1 wherein said opening comprises a closed opening through said projection.

3. The combination of claim 1 wherein said opening comprises a notch formed in and opening outwardly through one marginal portion of said projection.

4. The combination of claim 3 wherein said one marginal edge portion of said projection is disposed adjacent said main portion of said body and the latter defines one side of said slot.

5. The combination of claim 1 wherein said main body portion and projection comprise integral portions of a thin plate-like member.

6. The combination of claim 1 wherein said body includes a second thin plate-like projection projecting outwardly therefrom, said second projection also having an opening formed therethrough of a size to receive a strand of thread therethrough, said second projection being sufficiently thin and of a length and width to be inserted through the eye of a needle with at least a portion of said second opening displaced through said eye, said body including a second marginal edge adjacent said second projection and also defining a fulcrum surface.

7. The combination of claim 6 wherein said openings comprise closed openings formed through said projections at points spaced from said main portion of said body.

8. The combination of claim 1 wherein said opening comprises a closed opening through said projection, said projection being generally circular with said closed opening generally centered therein, the radial extent of said projection, outwardly of and about said opening, being considerably greater than the thickness of said projection.

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