

Nov. 26, 1946.

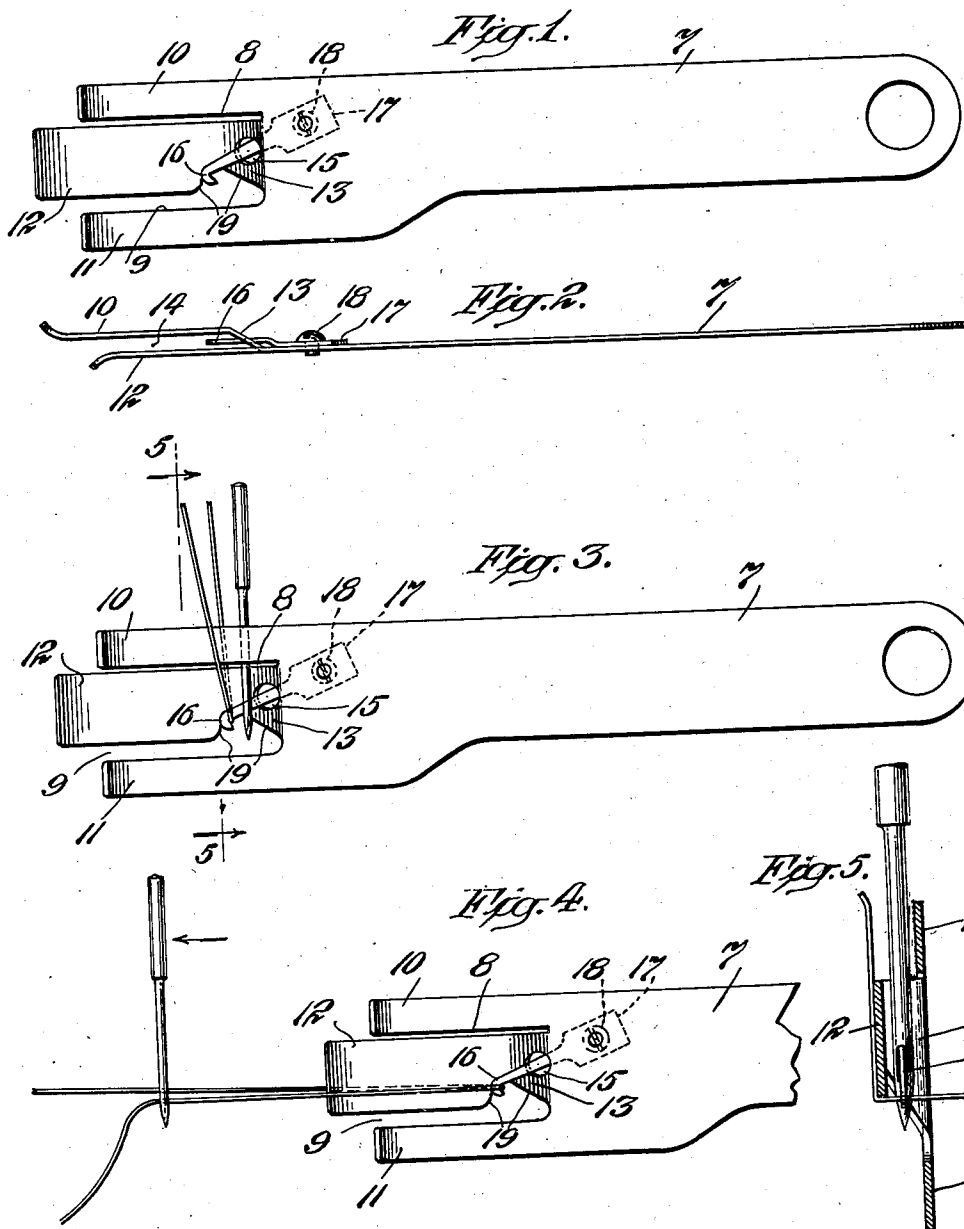
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2,411,686

NEEDLE THREADER

Filed Aug. 14, 1945

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 6.

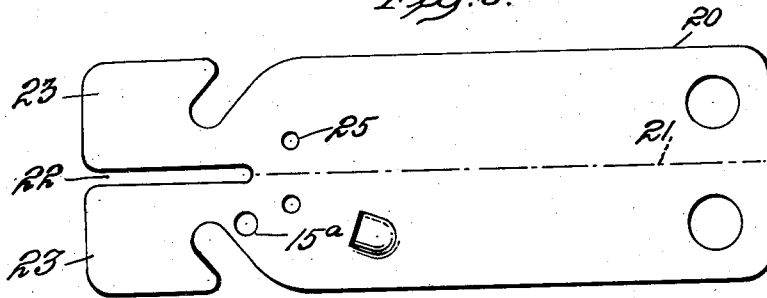


Fig. 7.

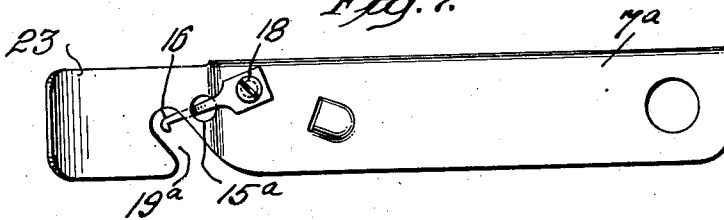
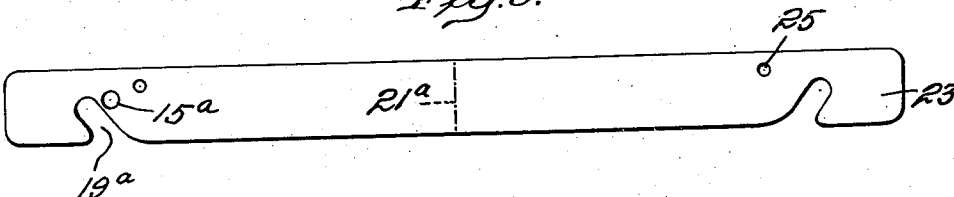


Fig. 8.



Fig. 9.



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NEEDLE THREADER

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7 Claims. (Cl. 223—99)

1

The invention herein disclosed relates to devices for threading needles.

Objects of the invention are to provide a needle threader of simple, inexpensive construction and which can be easily used to quickly thread the needle.

Other objects of the invention are to provide a needle threader of a one-piece or integral type of construction, with no loose or movable parts and of a character which can be stamped out of sheet metal and be thin and flat, taking up but small space and adapted to be used either as a separate tool or to be combined with other implements, for example to be mounted as a folding blade in a handle carrying a seam ripper or the like.

Other desirable objects and the novel features by which the purposes of the invention are attained are set forth or will appear in the course of the following specification.

The drawings accompanying and forming part of the specification illustrate present practical embodiments of the invention. Structure, however, may be modified and changed as regards the immediate disclosure, all within the true intent and broad scope of the invention as hereinafter defined and claimed.

Fig. 1 in the drawings is a side elevation of one of the needle threaders;

Fig. 2 is an edge view of the same;

Figs. 3 and 4 are side views illustrating use of the implement in effecting the threading of a needle;

Fig. 5 is an enlarged cross sectional view as on substantially the plane of line 5—5 of Fig. 3.

Fig. 6 is a plan view of a blank for another form of the invention;

Fig. 7 is a side view of the completed article;

Fig. 8 is a plan or edge view of the same; and

Fig. 9 is a plan view of a blank for a further modified form of the invention.

As first shown, Figs. 1 to 5, the body of the device consists of a strip of sheet material, in the nature of a straight, flat blade 7.

This blade is split longitudinally at one end at 8 and 9 to form upper, lower and intermediate fingers or prongs 10, 11 and 12, respectively.

The intermediate prong is longer than the other two and the root portion of the same at 13 is extended angularly from the body of the blade to offset this prong from the other two and thus to provide a channel 14 for reception of the needle. The longer, intermediate prong may be used, in effect, as a "feeler" to engage the back of the needle, thus to bring the channel into line

2

with the needle and the prongs 10, 11 and 12 into position to straddle the needle.

The offsetting portion 13 of the intermediate prong is shown as having an opening 15 there-through. This is for passage of the thread engaging hook 16. The latter is shown as made of thin, flat sheet metal with an enlarged base portion 17 secured over the side of the blade by a screw 18. This disposition and arrangement of the parts causes the hook to project through the opening 15 into the central portion of the needle receiving channel. The hole 15 serves also as a guide and brace for the hook, locating it in a downwardly inclined position with the top of the hook projecting below the edge of the intermediate prong sufficiently to catch the thread when the latter is brought up over the lower edge of the intermediate prong.

To assist in guiding the thread into engagement with the hook, the lower edge of the intermediate prong is shown as formed with an upward indentation 19 inclined or curved toward the tip of the hook so as to slide the thread there-over into the bite of the hook.

In Fig. 3 the device is shown as having been engaged over the needle and the downwardly inclined hook extended through the eye of the needle. Also in this view the thread 20 has been entered in the slot 9 between the intermediate and lower prongs and been slid up over the curved or inclined guiding edge 19 into engagement in the hook.

Fig. 4 shows how, with the hook passed through the eye of the needle and the thread caught by the hook, it is then only necessary to back the implement away from the needle, the hook then drawing a loop of the thread through the needle.

The body of the blade may be made long enough to serve as a convenient handle for using the implement. Being thin sheet material, this blade may be hinged mounted in a holder, after the manner of a blade in a pocket knife.

The device consists of only two parts, the body or blade structure and the hook and these, when put together as shown, constitute a unitary, practically one-piece article. The blade may be of thin sheet metal or other suitable sheet material. The complete article can be produced at low cost. The action is simple and practically automatic, since the prongs guide the hook over the handle into position to pass through the eye, and the edge of the intermediate prong guides the thread up into engagement with the hook, ready to be drawn back through the needle as the tool is removed from the needle.

In the forms of the invention illustrated in Figs. 6 to 9, the device is made up by folding and bending a blank to constitute the handle and needle receiving portions of the device.

Fig 6 shows a blank 20 which is folded along a longitudinal center line 21 to form a doubled handle portion 7a. One end of the blank is split or slotted at 22 in line with the fold line so that in folding, the separated portions will form the flexible sides 23 of a needle receiving channel. These separated portions are offset from the main handle forming portions by bends 24 and one of the sides has an opening 15a therethrough for the thread hook 16. The other folded portion of the blade has a seat 25 for the screw 18 which secures the thread hook. This screw then serves the additional function of positively securing the handle portions in their closely folded relation.

The thread guiding groove 19a is provided in this instance by the formation of similarly inclined notches in the outer edges of the channel forming portions of the blank.

Instead of a longitudinally foldable blank, the blank may be made up as in Fig. 9 with duplicate handle portions in end-to-end relation and arranged to be folded on a transverse line 21a to bring the parts together into closely overlying doubled handle and channel forming portions, substantially after the manner indicated in Figs. 7 and 8.

What is claimed is:

1. A needle threader comprising a blade split longitudinally in one end into upper, lower and intermediate prongs, the intermediate prong being offset laterally from the other prongs and forming therewith a needle receiving channel and the offsetting portion of said intermediate prong having a hole therethrough opening into said channel and a thread catching hook extending from the side of the blade, through said hole into said channel and of a size to pass through the eye of a needle to be threaded.

2. A needle threader comprising a blade split longitudinally in one end into upper, lower and intermediate prongs, the intermediate prong being offset laterally from the other prongs and forming therewith a needle receiving channel and the offsetting portion of said intermediate prong having a hole therethrough opening into said channel and a thread catching hook extending from the side of the blade, through said hole into said channel and of a size to pass through the eye of a needle to be threaded, the lower edge of said intermediate prong being indented to form with the lower prong a thread receiving throat and curved toward the end of the hook to guide the thread thereto.

3. A needle threader comprising a blade having laterally offset fingers to straddle a needle, one of said fingers having a hole therethrough opening into the needle receiving space between said fingers and a thread catching hook extending from said blade through said hole into said needle receiving space.

4. A needle threader comprising a blade split longitudinally in one end into upper, lower and intermediate prongs, the intermediate prong being offset laterally from the other prongs and forming therewith a needle receiving channel and the offsetting portion of said intermediate prong having a hole therethrough opening into said channel and a thread catching hook extending from the side of the blade, through said hole into said channel and of a size to pass through the eye of a needle to be threaded, said offset intermediate prong being longer and extending beyond the end of the other prongs to guide the threader laterally over a needle and to serve as a guide for directing the thread to the hook.

5. A needle threader comprising a blade having laterally offset fingers spaced to straddle the needle, one of said fingers having a hole therethrough opening into the needle receiving space between the fingers and a thread catching hook extending from the blade through said hole into said needle receiving space, the lower edge of one of said fingers being indented upwardly toward said thread catching hook to guide a thread engaged with said lower edge into the grip of said hook.

6. A needle threader comprising a blade split longitudinally at one end into upper, lower and intermediate prongs, the intermediate prong being spaced above the lower prong a distance providing easy entrance for a thread and said intermediate prong being offset laterally from the other prongs and having an opening through the offsetting portion of the same, and a thread catching hook extending from the side of the blade through said opening on a downward incline toward said wide thread receiving throat.

7. A needle threader comprising a handle having flexible, substantially parallel spaced fingers providing a needle guiding and receiving channel at one end, one of said spaced portions having an opening therethrough, a thread catching hook secured to one side of the handle and projecting through said opening and one edge of said channel forming portions having a notch therein leading to the projecting end of said hook for guiding a thread thereto.

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