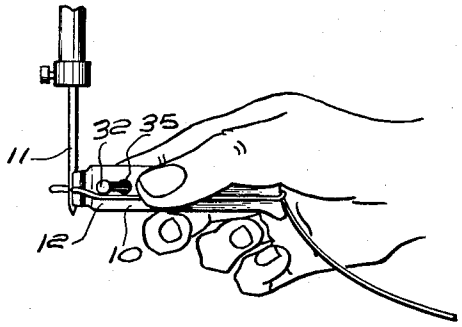
Jan. 26, 1954 K. HOECKELE 2,667,294

NEEDLE THREADER

Filed Sept. 28, 1950

FIG. 1



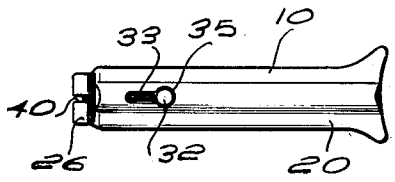




FIG. 2

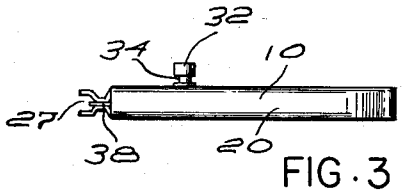



FIG. 3

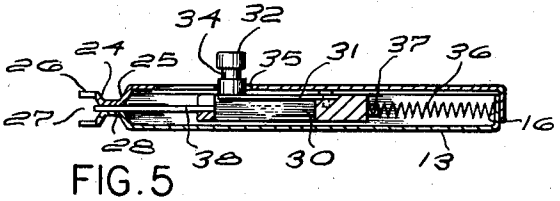



FIG. 5

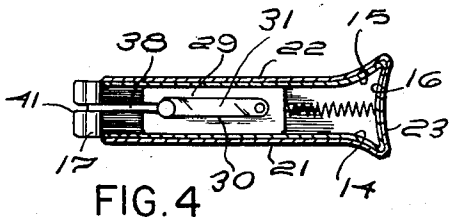



FIG. 4

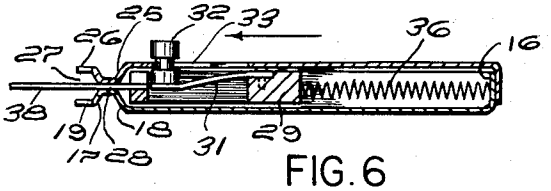



FIG. 6

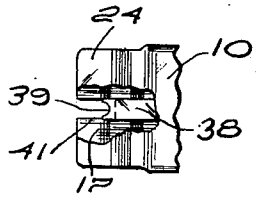



FIG. 7

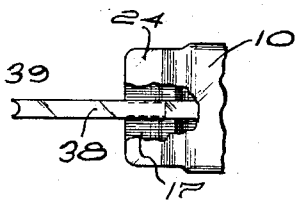



FIG. 8

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# UNITED STATES PATENT OFFICE

2,667,294

## NEEDLE THREADER

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Application September 28, 1950, Serial No. 187,195

3 Claims. (Cl. 223—99)

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The present invention relates to sewing devices, and has particular reference to a novel construction for a needle threader.

The principal object of the invention is to provide a simple, compact threader for threading sewing machine needles.

An additional object of the invention is to provide a needle threader which pushes a thread through the eye of the needle.

Another object of the invention is to provide the threader with a guide which is adapted to slide along the needle, and a spring pressed threading finger which moves the thread through the needle eye when the finger is opposite the needle eye.

A further object is to provide a threader with a slot for receiving a thread and a spring pressed finger adjacent the slot, the finger being shaped to releasably hold the thread during the threading operation.

With the above and other objects and advantageous features in view, the invention comprises a novel arrangement of parts more fully disclosed in the detailed description following, in conjunction with the accompanying drawings, and more specifically defined in the claims appended thereto.

In the drawings,

Fig. 1 is a front view showing the threader in needle threading position;

Fig. 2 is a front view of the threader, the threading finger being retracted;

Fig. 3 is a side view of Fig. 2;

Fig. 4 is a view similar to Fig. 2, the top being removed to disclose the arrangement of parts;

Figure 5 is a cross sectional view of Figure 3, the threading finger being retracted;

Figure 6 is a cross sectional view similar to Figure 5, the threading finger in needle threading position;

Figures 7 and 8 are an enlarged view of the threading finger in retracted and threading position respectively.

It has been found desirable to provide a simple, compact threader which is positive in action, and is quickly applied to a sewing needle through the eye. To this end, I provide a small device which has its forward end shaped to embrace a needle and to slide along the needle to the eye; and I provide a slot in the forward end to receive a thread, the finger being urged forwardly when the eye is reached to extend through the eye and carry the thread with it, whereby withdrawing the device withdraws the finger from the eye while leaving the thread therein.

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Referring to the drawings, the threader 10 is shown in Fig. 1 as applied to a sewing machine needle 11 for threading the eye of the needle with a thread 12. The threader 10 is of elongated hollow type, with a base 13 having sides 14, 15 and a shaped rear end 16, the forward end having an extension lip 17 which extends upwardly as indicated at 18 and then downwardly and outwardly as indicated at 19.

A cover 20 is shaped to conform to and telescope over the base, with sides 21, 22 seated over the base sides 14, 15, a shaped rear end 23 extending over the base rear end 16, and an extension lip 24 at the forward end which extends downwardly as indicated at 25 and then upwardly and outwardly as indicated at 26 to provide a transverse needle receiving channel 27 between the parts 19 and 25 and a narrow space 28 between the parts 25 and 18 for the purpose hereinafter described.

A block 29, see Fig. 4, is slidably seated in the hollow base, and is provided with an elongated slot 30, the block body at the rear end of the slot being stepped to receive the rear end of a flat spring 31 shaped to move into the slot 30 when depressed at its forward end. The forward end of the spring 31 has a button 32 mounted therein, and the cover 20 has a short elongated slot 33 through which the button extends, the button having a reduced portion 34 into which the sides of the cover slot seat, the rear end of the slot 33 having a circular enlarged opening 35 through which the bottom portion of the button may extend, as shown in Fig. 5.

A pressure spring 36 extends between a projection 37 on the rear end of the block and the rear end 16 of the base, to resiliently urge the block forwardly, and the front of the block is recessed to receive a threader tongue 38 which projects outwardly through the narrow space 28 and into the needle receiving recess 27. As shown in Figs. 7 and 8, the forward end of the tongue 38 is curved inwardly as indicated at 39 to receive the thread 12, and the upper and lower parts 19 and 26 are provided with aligned longitudinal slots 40, 41 for insertion of the thread 12 into contact with the tongue 38.

The operation of the threader may now be explained. The threader is held in one hand, preferably the right hand, with the button 32 facing the operator, and the needle channel 27 to the operator's left. The button is pulled back to snap into the opening 35, thus retracting the block and the tongue 38, and the thread is looped through the thread slots 40, 41. The threader is now placed against the needle, with the needle

in the channel 27, and is slid down until the end of the tongue, which has a slight rearward movement provided by a slight end play of the button 32 in the opening 35 and is slightly resiliently pressed back by the needle, snaps into the eye of the needle. The button 32 is now released by pressing down, whereupon the block advances and the tongue moves forwardly through the needle as shown in Fig. 1, holding carrying the thread with it. The thread is now grasped by the operator, and the threader needle is withdrawn.

The threader is thus of simple construction, with positive action, and operates by pushing the thread through the needle eye by spring action.

Although I have described a specific constructional embodiment of my invention, it is obvious that changes in the size, shape and arrangement of the parts and in their operation may be made to suit different threading requirements, without departing from the spirit and the scope of the invention as defined in the appended claims.

I claim:

1. In a threader, an elongated hollow body having a base and a cover shaped to conform to and mate with the base, a movable block in said body resiliently urged forwardly and manually retractable rearwardly, a recess in said block, a threading tongue mounted in said recess, the forward ends of said base and said cover having spaced extension lips, the forward ends of said lips having a transverse needle receiving channel therebetween, the rear ends of said lips including a narrow space for passage of the threading tongue, said tongue having a thread receiving portion for holding the thread during forward movement of the block, said needle receiving channel having slot means for receiving a thread, and manual means for releasably locking the block in retracted position.

2. In a threader, an elongated hollow body having a base and a cover shaped to conform to and mate with the base, a movable block in said body resiliently urged forwardly and manually retractable rearwardly, a recess in said block, a threading tongue mounted in said recess, the forward ends of said base and said cover having spaced extension lips, the forward ends of said lips having a transverse needle receiving channel therebetween, the rear ends of said lips including a narrow space for passage of the threading tongue, said tongue having a thread receiving portion having its forward end inwardly curved for holding the thread during forward movement of the block, said needle receiving channel having slot means for receiving a thread, and manual means for releasably locking the block in retracted position.



3. In a threader, an elongated hollow body having a base and a cover shaped to conform to and mate over the base, a movable block in said body resiliently urged forwardly and manually retractable rearwardly, a recess in said block, a threading tongue mounted in said recess, the forward ends of said base and said cover having spaced extension lips, the forward ends of said lips having a transverse needle receiving channel therebetween, the rear ends of said lips including a narrow space for passage of the threading tongue, said tongue having a thread receiving portion for holding the thread during forward movement of the block, said needle receiving channel having aligned longitudinal slots for receiving a thread, and manual means for releasably locking the block in retracted position.

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