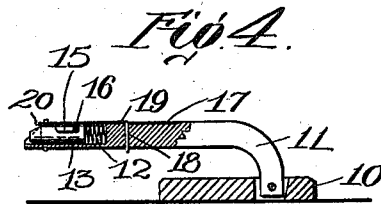
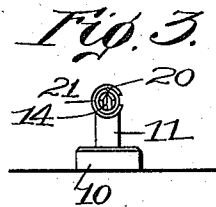
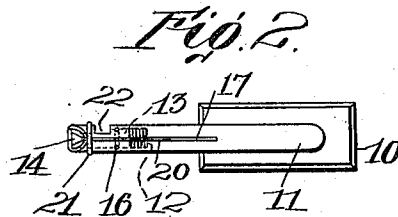
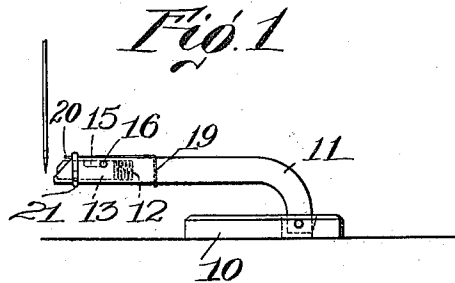


J. McKEOWN.
NEEDLE THREADER.
APPLICATION FILED JULY 13, 1909.

963,239.

Patented July 5, 1910.



Witnesses:

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JOSEPH McKEOWN, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO
ALFRED C. NEWMAN, OF WORCESTER, MASSACHUSETTS.

NEEDLE-THREADER.

963,239.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed July 13, 1909. Serial No. 507,434.

To all whom it may concern:

Be it known that I, JOSEPH McKEOWN, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Needle-Threader, of which the following is a specification.

This invention relates to a device for threading needles of sewing machines, and is intended both for domestic use and for use in factories.

The principal objects of the invention are to provide a needle threader in the form of a small article of manufacture which can be moved freely from one machine to another and does not have to fit any particular machine, and which shall be of such simple construction and of such few parts that it can be manufactured very cheaply, manipulated readily without special instructions or training, and will require practically no repairs.

Another object of the invention is to provide a device of this character by which the needle can be threaded without first bringing the needle to any particular position, and for this purpose the threader is made readily movable to the needle whatever the position thereof.

The invention also involves improved means for holding the threading hook, for receiving the point of the needle, and other improvements in the details of construction as will appear hereinafter.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a side view of a preferred embodiment of the invention shown in a position in which the threader is ready to be moved up to the eye of the needle; Fig. 2 is a plan of the threader; Fig. 3 is an end elevation; and Fig. 4 is a central longitudinal sectional view thereof.

In order that the threader may be readily moved about on the table of a sewing machine and moved from one machine to another, and in order that, when not in use, it may be kept out of the path of travel of the material to be sewed on the machine, the threader is shown as comprising a weighted support or base 10 which is of sufficient weight to overbalance the weight of the projecting parts. On this base is pivotally mounted an upwardly extending arm 11 shown projecting beyond the end of

the base and provided with an opening in its forward end. In this opening is located a light spring 12 in front of which is a plunger 13. This plunger projects beyond the end of the arm and is provided with a socket 14 adapted to receive the point of the needle. The arm is movable freely up and down about its pivot so that the socket can readily be brought into engagement with the needle point whatever the height thereof above the table, and for this reason it is not necessary to bring the needle to any predetermined position before this instrument can be employed. The plunger is provided with a slot 15 adapted to engage a transverse pin 16 on the arm to prevent the plunger from being dislodged from the opening. The end of the arm above the plunger constitutes a stop for the needle so that in placing the instrument in position it is necessary only to raise the socket to about the proper height and push the base toward the needle until the stop engages the same. The top of the arm is provided with a longitudinal slot 17 extending inwardly from the outer end thereof and located on top. At the inner end of this slot the arm is provided with a vertical perforation 18 into which extends the end 19 of the shank of a hook 20. The shank of the hook lies in the slot and the hook itself projects from the outer end of the arm over the plunger and socket. The parts are so proportioned that the distance between the bottom of the socket and the hook is equal to the distance between the point and the eye of a standard sewing machine needle or of any special needle for which the instrument may be made. The hook projects beyond the stop a short distance. The hook is held in position at its forward end in the form shown by a resilient split ring 21 which fits around the end of the arm and holds the hook with sufficient firmness. When it is desired to remove the hook or replace it the ring is turned around until the space at its ends registers with the slot 17 in the top of the arm, and then the hook can be raised and removed. It is to be observed also that the arm and plunger therein are provided with a notch 22 on the farther side thereof and located between the cross pin 16 and the ring. This is provided to permit the device to be used on machines employing a set or gang of needles, and the notch is made of

such dimensions as to receive the needle next to the one of the set for which it is used.

The way in which the instrument is used will be obvious from the description given. It is simply placed on the table of the machine and the arm raised to proper height and then the instrument is pushed forward against the needle while the point thereof is in the socket. This pushes the hook through the eye of the needle. A thread is then brought into contact with the hook and the instrument withdrawn which pulls the thread through the eye.

While I have illustrated and described a preferred embodiment of the invention, I am aware that many modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore I do not wish to be limited to all the details of construction herein shown and described, but

What I do claim is:—

1. As an article of manufacture, a needle threader comprising a supporting base having a horizontal pivot, an upwardly extending arm pivoted on said pivot, a reciprocable socket carried by the arm for receiving the point of a needle, a spring carried by the arm for yieldingly holding said socket forward, and a device fixed on the arm for passing a thread through the eye of the needle when the point thereof is in engagement with said socket.

2. In a needle threader the combination of a weighted base, an arm extending upwardly therefrom and pivoted thereto at its lower end, a horizontal hook on the arm, and a movably mounted horizontal plunger on the arm having a socket provided with a bottom for receiving the point of a needle.

3. In a needle threader the combination of a weighted base, an arm extending upwardly therefrom and pivoted at its lower end to the support, a hook on the arm, a movably mounted plunger on the arm having a socket for receiving the point of a needle, said plunger being adapted to be freely forced inwardly to a limiting position when the needle threader is pressed against the needle, and the arm having a stop for the needle at such a point that the hook projects beyond it.

4. In a needle threader the combination of an arm having a fixed stop thereon, a hook projecting beyond and above said stop,

and a plunger having a socket in the end thereof for receiving the point of a needle and mounted yieldingly on the arm under the stop, whereby when the socket is pushed up against the point of the needle the plunger will yield until the needle comes against the stop, in which position the hook will extend through the eye of the needle.

5. In a needle threader the combination of an arm adapted to be freely moved about on the table of a sewing machine and capable of motion up and down, and having a stop on the end thereof, a spring-pressed plunger in the end of the arm under said stop having a socket in the end thereof for receiving the point of a needle, and a hook fixed on the arm above the stop and plunger and projecting beyond the stop, the distance between the hook and the bottom of said socket being substantially the same as that between the point and the eye of a standard needle, whereby when the socket is moved to receive the point of the needle and the arm is pushed forward the hook will project through the eye in position to receive the thread, and when drawn back will draw the thread through the eye.

6. In a needle threader the combination of an arm having an opening in the end thereof and a longitudinal slot along the top at the end, of a spring pressed plunger in the opening projecting from the front end of the arm, a hook lying along said slot and projecting from the front end thereof above the end of the plunger, and a split ring resiliently held on the plunger for holding the hook in position in the slot.

7. In a needle threader the combination of an arm having a longitudinal slot along the top at the end, of a hook lying along said slot and projecting from the front end thereof, and a split ring resiliently held on the plunger for holding the hook in position in the slot.

8. In a needle threader, the combination of an arm having a slot along the top at the end, of a hook lying along said slot and projecting from the end thereof, and removable means on the plunger for holding the hook in position in the slot.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

JOSEPH McKEOWN.

Witnesses:

A. E. FAY,

C. FORREST WESSON.