

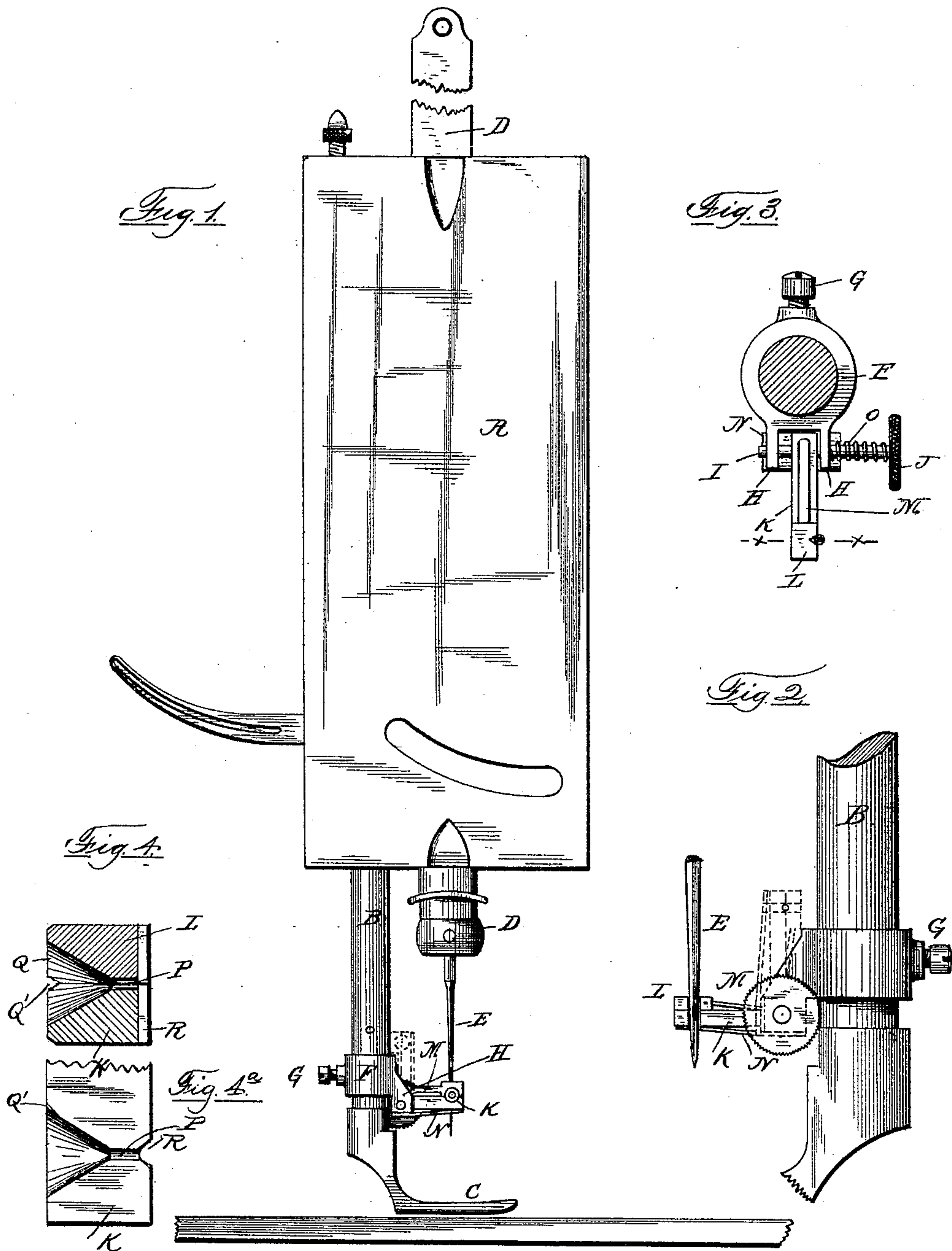
(No Model.)

2 Sheets—Sheet 1.

E. C. JENKINS.
NEEDLE THREADER FOR SEWING MACHINES.

No. 500,235.

Patented June 27, 1893.



Witnesses
Walter S. Brown
James J. Rafferty.

By his Attorney

Inventor
E. C. Jenkins
Louis W. Southgate.

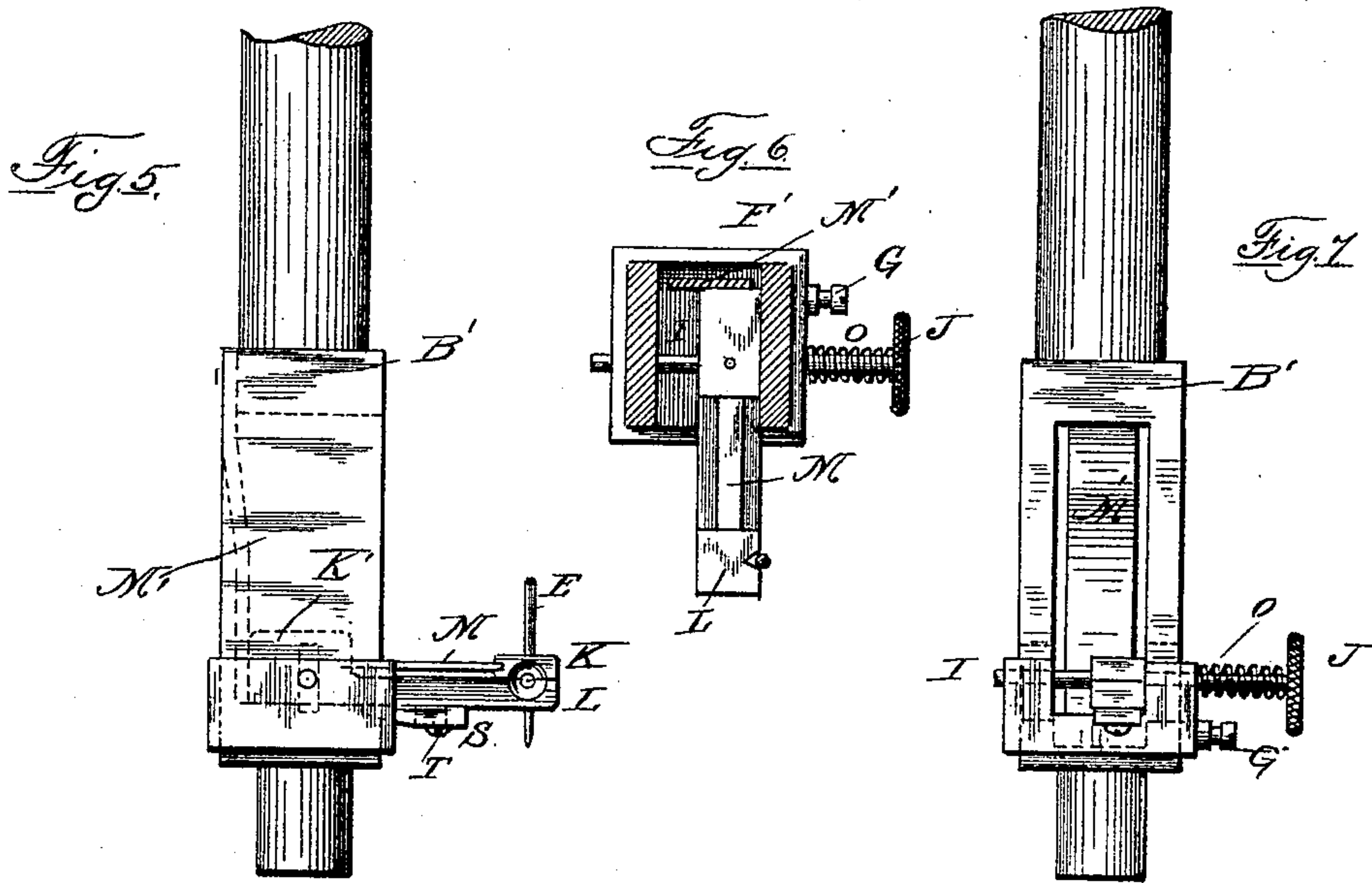
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UNITED STATES PATENT OFFICE.

EBENEZER CURTIS JENKINS, OF SHREWSBURY, MASSACHUSETTS.

NEEDLE-THREADER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 500,235, dated June 27, 1893.

Application filed April 20, 1891. Serial No. 389,596. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER CURTIS JENKINS, a citizen of the United States, residing at Shrewsbury, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Needle-Threaders for Sewing-Machines, of which the following is a specification.

The aim of this invention is to produce a device by which a sewing machine needle may be easily threaded, and to this end the invention consists of the device described and claimed in this specification, and illustrated in the accompanying two sheets of drawings.

Referring to the drawings forming a part of this specification, Figure 1 is a front view of the head of a sewing machine, with one form of my attachment applied to the presser-bar. Fig. 2 is a rear view of the same on an enlarged scale. Fig. 3 is a top view of the same. Fig. 4 is a section on line $x-x$ Fig. 3 of the guide on a still larger scale. Fig. 4^a is a plan view of one of the pieces forming the guide. Figs. 5, 6 and 7 are front, side and top views respectively, showing the preferred construction, wherein the guide is housed in the presser-bar when not in use.

Referring first in detail to Figs. 1 to 4 inclusive, A represents the head of a sewing machine, B the presser-bar, C the presser-foot, D the reciprocating needle-carrier, and E the needle. The same may be of any known construction and the particular form shown is used merely for the purpose of illustrating the manner in which the invention is applied.

Fitting on the presser-bar B, is the sleeve F, which may be adjusted up and down on the bar, and which is held in its adjusted position by the screw G. The sleeve has two projecting arms H, H in which is journaled the shaft or pin I, which has the milled head J, on the end of the same, and it will be seen that the shaft or pin is free to slide laterally in its bearings.

Fixed rigidly on the shaft or pin I, between the arms H, H is the bar K, and on top of the end of the bar K is the piece L, which is lightly held to the bar K by the spring M fastened to the rear of the bar K. On the under side of the bar K is fastened the spring N and this spring is widened at its rear end as shown in Fig. 3, to bear on the arms H, H. These

arms H, H are squared as shown, and thus the spring N will lock the bar K in its raised or lowered position.

On the shaft or pin I between the arm H and the head J, is the spring O, the tendency of which spring is to expand. Now, as the bar K is not so wide as the space between the arms H, H, it will be seen that by pushing in on the head J and turning the same, that the bar K may be swung up or down clear of the needle E, but if swung into its lowest position that the same will be pressed against the needle E by means of the spring O when released, and further that the spring N will keep the bar in its raised or lowered position. This constitutes one means for swinging the guide in and out of position.

The thread guide as before noted, is formed by the front end of the bar K and the piece L lightly held on the top of the same. These two pieces are drilled to form a channel P and the same may be countersunk as at Q to form a tunnel, so that the thread will be readily guided to the eye of the needle, and the same has the notch Q' to guide the thread when the same is pulled from the guide. The guide is channeled at the rear R so as to fit the needle.

The manner in which the device is used is as follows:—The needle-bar is run up to its highest point, and the presser-bar lowered. The guide is swung down in front of the needle as before described, and the thread is then passed through the guide and thus through the eye of needle. Now, by giving the thread a slight, sidewise pull the parts K and L will open and the thread may be thus pulled clear of the same, (the notch Q', guiding the thread,) and then the guide may be swung up clear of the needle out of the way, the thread remaining in the eye of the needle. Of course a simple slot in the side of the guide would allow the thread to be pulled out of the guide after the same is passed through the eye of the needle, but the preferred form is the construction shown as then there is a smooth guide for the needle. But where I hereinafter use the term "divided guide," I mean to include a guide made in one piece and slotted as just described.

The guide may be completely housed when not in use as shown in detail in Figs. 5, 6 and

7, in the presser-bar. In this construction the bar is preferably made square at B' as shown, and the same is recessed to form the housing for the guide. The sleeve F' fits this portion of the presser-bar and is held by the screw G.

The shaft or pin I is journaled in the same manner as before described, and the sides of the bar B' are slotted to allow the shaft I to move up and down in the same as the sleeve F' is adjusted up and down. The spring M' used in this construction to lock the guide in its two positions, is fastened to the rear of the bar B' and bears against the squared portion K' of the guide to operate as readily understood. To still further adjust the guide, the block S may be used. The same is slotted as shown, and a screw T passes through the slot and holds the same to the bar. It will be seen that by adjusting the wedge block in and out, as the same forms the limiting stop for the downward movement of the guide that the same may be nicely adjusted. These details of construction may be greatly varied by a skilled mechanic without departing from the scope of my invention.

It will be seen that my invention is very readily applied to any form of sewing machine, and that the same forms a very valuable addition thereto, as the needle can be quickly and easily threaded by inserting the thread in the guide and then pulling the same out sidewise. The parts K and L of the guide are only held lightly together so that this may be easily done.

The invention is particularly useful in machines which are difficult to thread, and also in situations where the machine gets a poor light. It is also of inestimable use to operators whose sight is poor or failing.

Modifications may be made by a skilled mechanic without departing from the scope of my invention.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the recessed presser-bar, a needle thread guide pivoted thereto,

and means for swinging said guide into position before the needle and up into the recessed presser-bar, substantially as described.

2. A needle threader attachment for sewing machines, comprising the sleeve for attachment to the presser-bar in combination with the elbow-arm, carrying the thread guide at its outer extremity, said arm being loosely journaled at its inner extremity to the sleeve, by a pin having both a longitudinal and a rotary movement, the former movement being spring-actuated, whereby the arm may be folded up in the vertical plane against the presser-bar, or may be turned down horizontally to present the thread guide to the side and eye of the needle, and press it against the latter, through the agency of the spring which actuates the pin and arm in the horizontal plane, all as is substantially shown and described.

3. The combination of a sewing machine, a sleeve mounted on the presser bar, a pin journaled in the sleeve, a head mounted on one end of the said pin, and a spring mounted on the pin between said head and one side of said sleeve and a thread guide fastened to said pin in said sleeve, said thread guide being of less width than the inside diameter of the sleeve, whereby the said pin will be capable of a limited axial movement for the purpose set forth, substantially as described.

4. The needle threading device for sewing machines consisting of the sleeve mounted on the presser bar, the divided thread guide pivoted in said sleeve and the wedge S mounted on the underside of the thread guide so as to be adjustable, said wedge bearing on the said sleeve when the guide is turned in front of the needle, whereby the position of the guide relatively to the eye of the needle may be adjusted, substantially as described.

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

EBENEZER CURTIS JENKINS.

Witnesses:

LOUIS W. SOUTHGATE,
WALTER S. BOWEN.