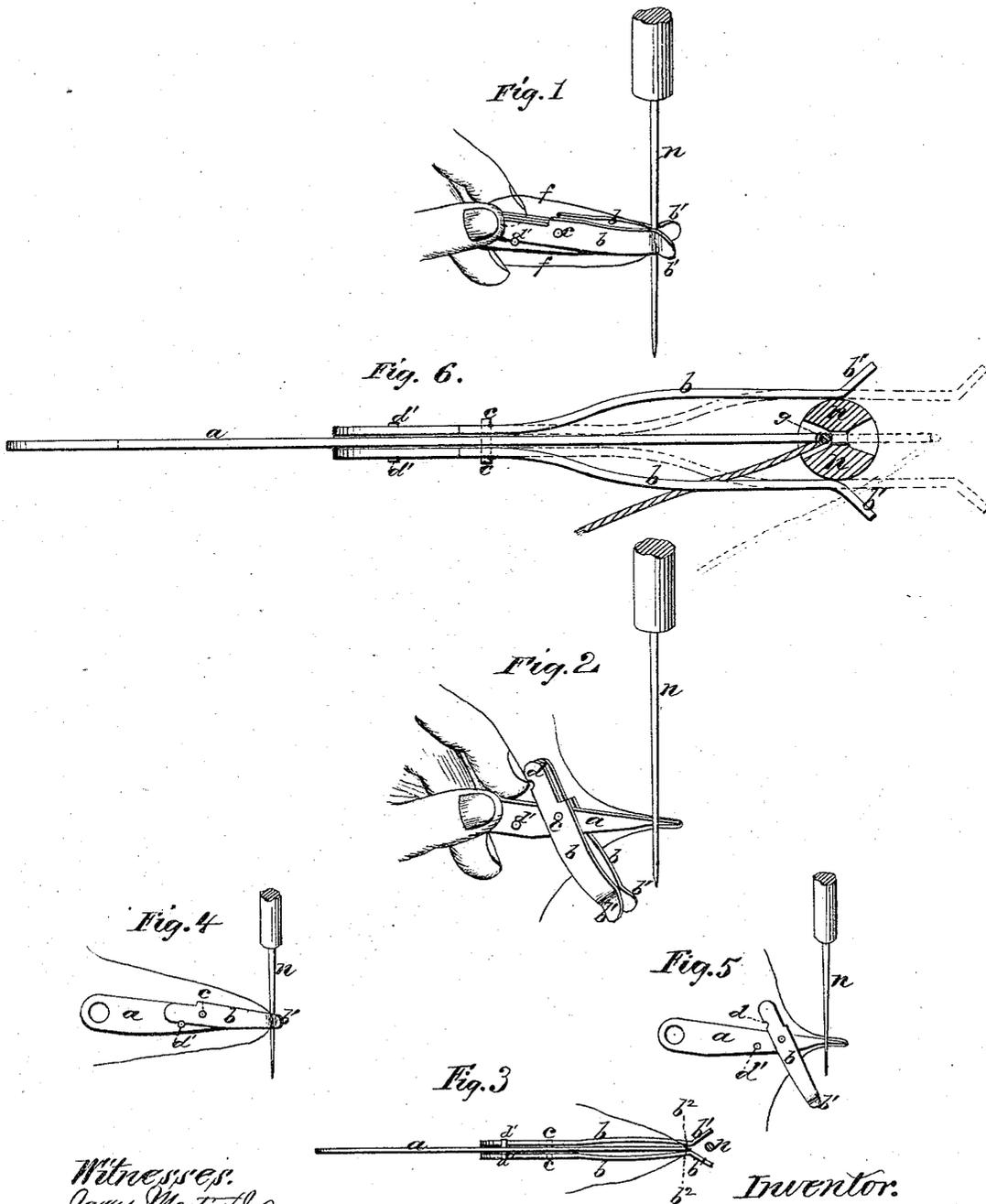


H. A. ELLIS.

Needle-Threaders for Sewing-Machines.

No. 157,745.

Patented Dec. 15, 1874.



Witnesses:
James Martin Jr.
J. N. Campbell.

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UNITED STATES PATENT OFFICE.

HENRY A. ELLIS, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO
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IMPROVEMENT IN NEEDLE-THREADERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 157,745, dated December 15, 1874; application filed
June 3, 1874.

To all whom it may concern:

Be it known that I, HENRY A. ELLIS, of Springfield, Hampden county, State of Massachusetts, have invented a new and Improved Implement for Threading Needles; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing and letters of reference thereon, forming a part of this specification, in which drawing—

Figures 1, 2, 3, 4, 5, and 6 are views representing the implement or needle-threader in the act of being used to pass a thread through the eye of a needle.

My invention may be used to thread an ordinary sewing-needle, but is more particularly intended for threading sewing-machine needles, to which latter class of needles the implement is represented in the drawing as being applied.

My threader is constructed with a central plate, *a*, in the form as shown clearly in Figs. 2 and 5. Its rear end is of sufficient width to be conveniently grasped by the fingers of the person using it, and from near such end tapers forward, so as to form a forward-pointed end of such size or diameter as will readily admit of its passage through the eye of a needle, and at the same time carry with it a thread, as indicated in said figures. Two springs, *b b*, are pivoted to the central plate at *c*, and have their rear ends nicked, as at *d*, in order that a stop-pin, *d'*, passed through the central plate, may seat itself in the nicks *d* when the implement is in the position to have a thread inserted between the springs *b b*, as shown in Figs. 1 and 4, preparatory to threading a needle. The forward ends of the springs *b b*, as at *b'*, are made flaring or bent outward, thus forming open jaws for conveniently inserting the thread between them.

As will be seen in Fig. 3, the pointed end of the plate *a* is made to terminate just back of the jaws or flaring ends *b'* of the springs *b*, at which point, as at *b''* in Fig. 3, the springs clasp the extreme forward end or point of the plate *a*, so that, when a thread is passed between the jaws *b'* and drawn back, the thread will be arrested directly upon the extreme for-

ward end of plate *a*, which extreme end is made with a slight concavity or notch, in which the thread can more or less seat itself. Thus, by making the springs *b* clasp the extreme forward end of the plate *a*, and by forming the point with such concavity, the thread is held in position thereon and prevented from slipping between one or the other of the adjoining springs and the plate *a*, and while thus held can be thrust through the eye of the needle, as shown in Figs. 2 and 5.

In Fig. 6 I have shown an enlarged view of my needle-threader, the figure representing a like view of a sewing-machine needle, *n*, to which my threader is applied, and just in the act of passing the thread through its eye, the dotted lines showing the position of the parts after the threading has been effected.

The implement may be used as follows: Hold the thread *f* tightly over the point between the springs, as seen in Fig. 1; then place it against the needle above the eye, on the side of the long groove *g* in the needle, as shown in Figs. 1 and 6; press hard enough to open the springs and permit the point of the threader to enter the groove in the needle; then carry it down toward the point of the needle, still pressing against it. When the point of the threader reaches the eye, it will pass through, carrying the thread with it. Release the thread and turn down the springs, as seen in Fig. 2, grasp the thread on the point, and withdraw the threader.

When not in use, the springs should be kept over the point of the plate *a*, and against the stop-pin *d'*.

Having thus described my invention, I would state that I do not claim, broadly, passing thread through the eye of a needle by means of a threading-bar; but

What I do claim is—

A needle-threader composed of the notched bar *a*, its stops, and the pivoted spring-jaws *b*, with deflected ends *b'*, all combined and operating substantially as described.

HENRY A. ELLIS.

Witnesses:

E. H. LATHROP,

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