

H. WELLS.
Needle-Threading Hooks.

No. 145,978.

Patented Dec. 30, 1873.

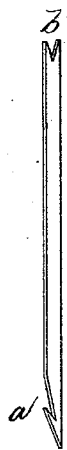


Fig. 1.



Fig. 2.

Witnesses

E. H. Ober.

R. W. Williams

Henry Wells Inventor
By his Attys

Henry W. Williams *Att'y*

UNITED STATES PATENT OFFICE.

HENRY WELLS, OF WOBURN, ASSIGNOR OF ONE-HALF HIS RIGHT TO
DANIEL FOBES, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN NEEDLE-THREADING HOOKS.

Specification forming part of Letters Patent No. **145,978**, dated December 30, 1873; application filed
September 10, 1873.

To all whom it may concern:

Be it known that I, HENRY WELLS, of Woburn, in the county of Middlesex and State of Massachusetts, have made a new and valuable Improvement in Hooks for use in Threading Needles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

It is my object, by means of this invention, to produce a hook which is to be used in the delicate operation of threading needles of all kinds, not only such as are used in ordinary sewing, but also all varieties of sewing-machine needles. The hook, which is operated by some device for holding and guiding it, is to be passed through the eye of the needle, and, catching the thread, is drawn back through the eye, thus threading the needle. Such a hook must, necessarily, be very small, and tolerably strong. All hooks of this size now manufactured are bent over into the hook shape, and, when made sufficiently small to serve the purpose above mentioned, are necessarily weak and easily unbent. They are also difficult to manufacture, owing to the extreme delicacy of the operation, for it must be remembered that these hooks are intended for use in connection with the finest needles manufactured.

The hook, which is shown many times enlarged in Figure 1 of the drawing, is constructed from a very fine, long, flattened wire, which wire is run through proper machinery, which cuts notches in the side of the same, until it appears, when magnified, as shown

in Fig. 2. As the wire is cut off, hooks are formed, as seen in Fig. 1.

The end *b* may be made as described, or may be plain, as desired, the end *b* not being a part of my invention.

Each notch is perfect, and no finishing is required when the hooks are cut off from the flattened strip of wire. Thus no bending is required, each hook is perfect, and great strength is produced in the hook.

While it is an easy thing to unbend, and consequently spoil, an ordinary hook, the hook shown in the drawing cannot be unbent, for the simple reason that it was never bent to its present shape, but was cut out of solid metal.

Any suitable mechanism may be used for inserting the hook into the eye of the needle and threading the same; for example, my hook might be used in connection with the invention for threading needles described in Letters Patent No. 113,542, granted April 11, 1871, when sewing-machine needles are to be operated upon. In threading ordinary needles, some other device may be used.

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

1. As a new article of manufacture, the needle-threading device having hook *a* at one end, with the notch *b* at the other end, substantially as described.

2. A hook for threading needles cut from a notched strip of flattened wire, for the purposes set forth, and substantially in the manner above specified.

Witnesses: HENRY WELLS.

HENRY W. WILLIAMS,

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