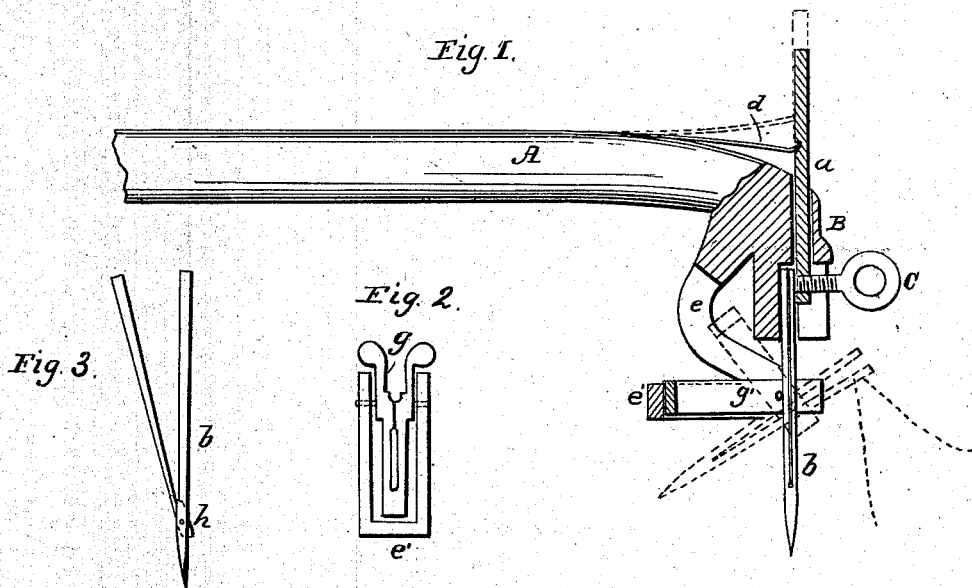


G. M. FRARY.
Sewing-Machine Needle.

No. 112,576.

Patented March 14, 1871.



Witnesses:
Jas Tusché
Wm. Brown.

Inventor:
G. M. Frary
Per *[Signature]*
Attorney

United States Patent Office.

GEORGE M. FRARY, OF ST. LOUIS, MICHIGAN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
CARPENTER PATENT SEWING-MACHINE NEEDLE COMPANY, OF NEW YORK CITY.

Letters Patent No. 112,576, dated March 14, 1871.

IMPROVEMENT IN NEEDLES AND HOLDERS FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE M. FRARY, of St. Louis, in the county of Gratiot and State of Michigan, have invented a new and useful Improvement in Sewing-Machine Needle; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a side view of a needle-bar having my improved split open-eyed needle attached.

Figure 2 is a front view of the device for holding the needle in the bar.

Figure 3 is a modification of the needle detached.

Similar letters of reference indicate corresponding parts.

This invention relates to an improvement in the construction of a needle for a sewing-machine, and consists in splitting the needle longitudinally in such manner as to open one end for the admission of the thread into the eye, whereby the needle may be threaded with greater facility than by running the thread through the eye endwise in the ordinary manner.

A represents a needle-bar of the class working in a pivot at one end.

In the head B is fitted a slide-piece, *a*, the lower end of which slips over the top end of the needle *b*, to hold it fast, by means of a thumb-screw, *c*, which clamps the slide-piece *a* down upon the needle when it is used.

When the slide-piece *a* is released by unscrewing the thumb-screw *c*, it rises in the head B by means of a spring, *d*, connected with its upper end.

Behind the head B is a forked bent arm, *e*, the lower end of which is formed so as to act as a spring-clamp, *e'*, within which is held suspended, on pivots, a cleft-clamp, *g*, fig. 2, for holding the needle *b* in such manner that it can swing or oscillate, as required, to thread it, and also shall bear on one side of the split

needle only, so that the other side may be opened for the purpose of threading, as seen clearly in fig. 1.

The needle *b* is split longitudinally from the upper end down to the eye in such manner that the two sides thus formed may be sprung far enough apart to introduce the thread between them and pass it down to the eye, as shown in red in fig. 1; or the needle may be made in two parts, nicely fitted together, and one end of one side secured to the other at the eye by a pivot or hinge-joint, *h*, as shown in fig. 3.

To thread the needle the upper end is released from the slide-piece *a*, and is swung forward in the suspended clamp *g*, so that the sides may be spread to introduce the thread.

Needles of any size may be fastened in the cleft-clamp *g*, which, with the spring-clamp *e'*, adapts itself to different sizes.

By means of this construction both of the divisions of the needle formed by the split are securely held, when in operation, by the needle-arm, and, consequently, it possesses the same strength as though it were not divided.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a longitudinally-split eye-pointed needle, having the split extending from the eye upward through its top, with a needle-arm adapted to clamp or hold both of the divisions of the needle, as described.

2. The cleft-swinging clamp *g*, in combination with the split needle *b*, arranged and operating as herein described.

3. The slide-piece *a*, with the spring *d*, in combination with the needle *b* and the thumb-screw *c*, constructed and operating as and for the purpose herein described.

Witnesses: GEORGE M. FRARY.

WM. F. McNAMARA,

ALEX. F. ROBERTS.