G. W. LASCELL.

Sewing-Machine Needles.

No. 166,993. Patented Aug. 24, 1875.

Fig. 2.

Fig. 1.

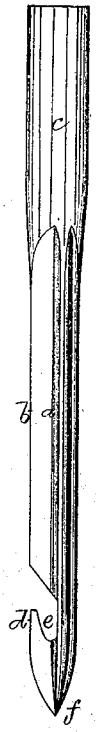

Fig. 3.

Fig. 5.

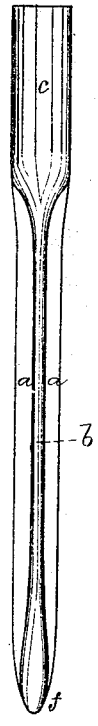

Fig. 6.

Fig. 7.

Fig. 4.

Witnesses.

S. W. Piper

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George W. Lascell.

by his attorney.

R. H. Eddy

UNITED STATES PATENT OFFICE.

GEORGE W. LASCELL, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN SEWING-MACHINE NEEDLES.

Specification forming part of Letters Patent No. **166,993**, dated August 24, 1875; application filed April 14, 1875.

To all whom it may concern:

Be it known that I, GEORGE W. LASCELL, of Syracuse, of the county of Onondaga, of the State of New York, have invented a new and useful Improvement in Needles for Sewing-Machines; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, Fig. 2 a front view, and Fig. 3 a transverse section, of a hooked needle provided with my invention. Fig. 4 is a side elevation, Fig. 5 a front view, and Fig. 6 a transverse section, of an eye-pointed needle provided with or made in accordance with my said invention, in the carrying out of which the needle is grooved longitudinally in its next contiguous quarters, so as to form on one or each opposite side of it, from its hook or eye upward to or about to its tang, a thin fin or tongue, all being essentially as shown in the drawings, in which—

a a denote the grooves; *b*, the tongue between them; *c*, the tang; *d*, the hook, and *e* the eye, the point being represented at *f*.

Fig. 3, which is a transverse section, exhibits a tongue on each of the opposite sides of the needle-shank, with grooves flanking each of the said tongues.

The object of the improvement is not only to facilitate the passage of the needle into or through and out of a piece of leather or other material while being sewed by the needle, but to reduce, comparatively speaking, the hole made by the needle, in order that the thread may fit the closer thereto, than what would result were the needle without any such grooves, arranged as set forth.

Fig. 7 is a transverse section of a needle grooved in its shank in the ordinary way, the grooves being at the vertices of its opposite semicircular segments.

As to the wax thread or hook-needle—first, the improvement causes it to displace less stock in puncturing the leather; second, the tongue following the hook makes a narrow cut or groove, which causes the thread to impinge upon the leather, it being drawn into the groove tight, as by hand-sewing. The improvement prevents the glancing of the needle when coming in contact with lasting-tacks, or from any other cause. The thread being drawn into the track of the tongue tends to draw the loop or double thread of the chain-stitch snugly together, and in the direct line of the channel or line of the sewing. The improvement secures the direct passage of the needle through the stock without either variableness or turning. Most of the advantages resulting to the hook-needle also result to the eye-pointed one.

I make no claim to a needle having its grooves arranged as shown in the said Fig. 7. I do not claim a needle having its shank rhombic in transverse section, and grooved on one side, from its point up to its tang, and also grooved at its eye, as shown in the United States Patent No. 112,744; my needle being grooved on both sides in its next contiguous shank-quarters, from its point to or nearly to its tang, so as to form a thin tongue, *b*, projecting from the middle of the chord or diametric side of the body.

In the needle shown in said patent, the grooves are not in the next contiguous shank-quarters, but are in opposite faces of the rhombic section, which causes the needle to operate with the thread in a very different manner from what my needle does.

I claim as my invention—

The needle herein described, having the longitudinal grooves in the contiguous shank-quarters, extending from the point, hook, or eye, upward to or nearly to its tang *c*, whereby a thin tongue, *b*, is formed, all being constructed as shown and described.

GEORGE W. LASCELL.

Witnesses:

R. H. EDDY,

J. R. SNOW.