

E. STRAIN.
NEEDLE FOR SEWING MACHINE.

No. 106,092.

Patented Aug. 2, 1870.

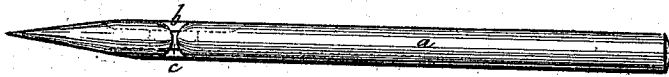
Fig. 1.



Fig. 2.



Fig. 3.



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EDWIN STRAIN, OF NEWTON, MASSACHUSETTS.

Letters Patent No. 106,092, dated August 2, 1870.

IMPROVEMENT IN NEEDLE FOR SEWING-MACHINE.

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, EDWIN STRAIN, of Newton, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Sewing-machine Needles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side elevation of my improved needle.

Figures 2 and 3 are elevations of the same enlarged.

My invention has for its object to facilitate the threading of a sewing-machine needle, which operation, by reason of imperfect light, failure of eye-sight, or other causes, often becomes a matter of difficulty and consumes much time; and

My invention consists in a sewing-machine needle, provided with a lateral opening leading into its eye, constructed with barb or bur-like points, directed inward, or so as to admit the ready passage of the thread to the eye, but preventing the escape of the thread therefrom, the corners of the said lateral opening being rounded, to prevent its catching or injuring the material in the passage of the needle.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawing—

a represents the shank of a sewing-machine needle, and

b, the eye thereof.

c is a slit or orifice, which is cut through the metal composing one side of the eye *b*, and at about the center of the latter.

The corners of the two projections thus formed are then rounded, so as to form points *d d*, which are bent or curved inward, the orifice *c* between them, which permits of the passage of the thread to the eye, being, by the separation of the points, enlarged to such an

extent as to allow of a forced passage of the thread into the eye *b*, but sufficiently attenuated to prevent its escape therefrom.

This orifice should vary in size according to the size of the needle, and of the thread which the needle is destined to carry, the breadth of the orifice being in all cases slightly less than the diameter of such thread.

The presentation of the curved points *d d*, directed inward, allows the thread to pass easily between them into the eye, while it serves equally well to prevent its accidental escape therefrom, and, as the corners of the opening *c* are rounded, all liability of injury to the material in the passage of the needle is avoided.

Repeated experiments have fully demonstrated that a needle made as above described performs its duty perfectly in all varieties and thicknesses of fabrics, and under all conditions of service, from the finest and cheapest muslin to the heaviest beaver-cloth or leather.

Claim.

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

A sewing-machine needle, provided with a lateral opening, *c*, into the eye thereof, constructed with barb or bur-like points *d d*, directed inward, or so as to admit the ready passage of the thread to the eye, but preventing the escape of the thread therefrom, and with the corners of said lateral opening *c* rounded, so as to prevent its catching or injuring the material in the passage of the needle.

Witness my hand this 25th day of October, A. D. 1869.

EDWIN STRAIN.

Witnesses:

JAS. B. ROBB,

P. E. TESCHMACHER.