

W. S. SPALDING.
Sewing-Machine Needles.

No. 156,603.

Patented Nov. 3, 1874.

Fig 1.

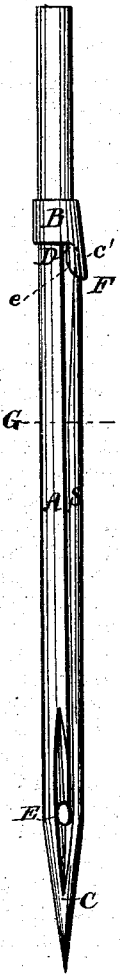


Fig 2.

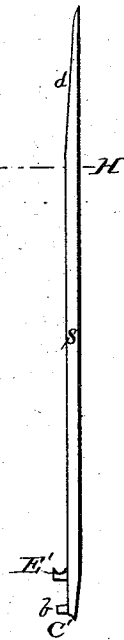


Fig 3.



Witnesses

W. S. Spalding
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WALTER S. SPALDING, OF WALPOLE, NEW HAMPSHIRE.

IMPROVEMENT IN SEWING-MACHINE NEEDLES.

Specification forming part of Letters Patent No. **156,603**, dated November 3, 1874; application filed January 12, 1874.

To all whom it may concern:

Be it known that I, WALTER S. SPALDING, of Walpole, county of Cheshire and State of New Hampshire, have invented an Improved Sewing-Machine Needle, of which the following is a specification:

The object of my invention is to construct a needle that may be easily and quickly threaded. This invention has relation to that class of sewing-machine needles wherein the shank of the needle is composed of two branches extending upward from the eye; and it consists, first, in so connecting the branches that the upper wall of the needle-eye shall be formed by a shoulder on the main stem, while the lower wall thereof shall be formed by a projection of the spring-branch; second, in the novel combination, with the main stem and spring-branch, of the guard-cap, secured to the main stem and provided with a depending concave flange, the sides of which are curved upward and toward the main stem, all as hereinafter more fully shown and described.

Figure 1 of the drawings is a side view of a needle embodying my improvement. Fig. 2 is a detached view of the spring-branch of the needle. Fig. 3 is an enlarged side view of the lower portion of the needle with my improvement.

In the accompanying drawings, the letter A designates the main stem of my needle, recessed in the usual way, as shown at *a*, in its side fans, forming a web of less thickness than the general thickness of the needle, which is divided by two notches, E and *b'*, as shown in Fig. 3 of the drawings. The letter S indicates the spring-branch of the needle-shank. This branch is beveled on the inside face of its upper end, as shown at *d*, Fig. 2 of the drawings. At its lower end are formed two projections, E' and *b*, respectively designed to be seated in the notches E and *b'* of the main stem. The lower projection, *b*, fits its seat closely, and is designed to be firmly secured therein by welding or otherwise. The upper projection, E', is seated upon a shoulder

of the middle portion of the web, between the two notches, and is concave on its upper edge, forming the lower wall of the thread-eye, the upper wall of which is formed by the concave upper margin of the notch E. This construction renders it impossible for the thread to slip below the eye of the needle when introduced through the cleft between the main stem and spring-branch. The upper end of the spring is confined and guarded by the cap B, which is secured to the main stem A at the proper height, and is provided on the side of the spring with a depending flange or guard, *c'*, concave from side to side on the inside, and on the outside convex in the same direction. The sides *e* of this guard are rounded upward toward the main stem in cam form, and serve to draw the thread over the end of the spring S into the cleft between the latter and the shank A. As the spring S is beveled on the inside face of its upper portion, it is sprung outward against the inside face of the flange *c'*, and in this manner clears the thread completely, when the latter is drawn forward by the cam-sides *e* of said flange.

I am well aware that it is not new to make a needle with a divided shank for the purpose of facilitating the operation of threading; hence I do not claim such invention, broadly.

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

1. The sewing-machine needle, having in its main stem the notch E, the upper margin of which forms the upper edge of the thread-eye, and on its spring-branch the projection E', fitting into the lower portion of said notch, and forming the lower edge of said eye, substantially as specified.

2. The combination, with the outwardly-sprung branch S, of the main stem A and the cap B, having the flange-guard *c'* and the cam-edges *e*, substantially as specified.

WALTER S. SPALDING.

Witnesses:

C. H. L. SPALDING,
CHARLES FISHER.