(No Model.)

A. S. HUTCHINSON.

SEWING MACHINE NEEDLE.

No. 360,884. Patented Apr. 12, 1887.

Fig. 1

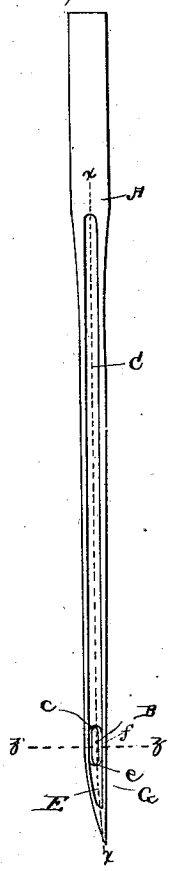


Fig. 3

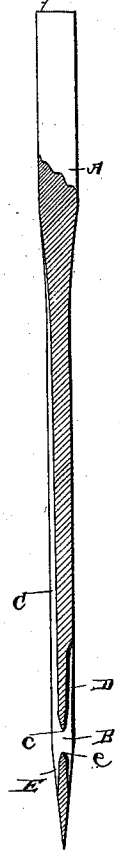


Fig. 2

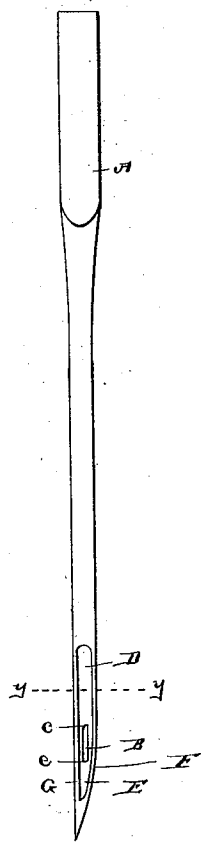


Fig. 4

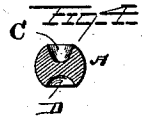
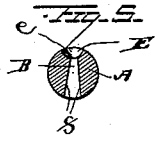


Fig. 5



Witnesses

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UNITED STATES PATENT OFFICE.

ARTHUR S. HUTCHINSON, OF GAINESVILLE, FLORIDA.

SEWING-MACHINE NEEDLE.

SPECIFICATION forming part of Letters Patent No. 360,884, dated April 12, 1887.

Application filed September 11, 1886. Serial No. 213,316. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR S. HUTCHINSON, a citizen of the United States, residing at Gainesville, in the county of Alachua and State of Florida, have invented a new and useful Improvement in Needles, of which the following is a specification.

My invention relates to improvements in needles for sewing-machines; and it consists of the peculiar construction of the same, as will be hereinafter fully described, and particularly pointed out in the claims.

The primary object of my invention is to provide an improved needle for sewing-machines, which can be very easily and rapidly threaded without unduly straining the eyes of the operator, and thereby effecting a saving in time.

In the drawings hereto annexed, Figure 1 is a side elevation of a sewing-machine needle embodying my invention on an enlarged scale. Fig. 2 is a similar view taken from the reverse or opposite side. Fig. 3 is a longitudinal sectional view on the line *x x* of Fig. 1. Fig. 4 is a horizontal sectional view on the line *y y* of Fig. 2, and Fig. 5 is a similar sectional view on the line *z z* of Fig. 1.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates the needle, which is of the form usually employed in sewing-machines, except the peculiar formation of the eye B thereof, which I will now proceed to describe.

One of the sides of the needle is provided with a longitudinal groove or channel, C, which begins at a suitable point on one side thereof, near the upper end, and gradually increases in depth toward the said eye B of the needle, as shown, and the reverse side of this needle is provided with a similar longitudinal groove, D, which, however, is not one-fourth as long as the channel C, and which is not made as deep at the point where it merges into the eye B as the channel C. The lower extremities of these longitudinal grooves or channels meet at the upper end of the eye B, as designated at C, and the sides of the needle adjoining the lower end of the eye B are provided with similar grooves or channels, E, but which, however, are very short. These grooves or channels E are arranged parallel with the grooves or channels C D, and they meet or terminate at the lower end of the eye, as designated by *e* in Fig. 3. It will thus be seen that the upper and lower ends of the eye B of the needle are reduced, as shown at *c e*, which will lessen the resistance to the passage of the thread through the eye to a minimum, and the longitudinal groove or channel C serves to facilitate the operation of threading the needle, as it is only necessary to insert the end of the thread into the groove and then force it along the latter until it reaches the point *c*, when it will pass very freely through the eye, as is obvious.

The sides of the eye of the needle are inclined or beveled, as shown at *f*, in order to permit the thread to pass very freely therethrough from the side on which the channel or groove C is formed, and thus also aid in facilitating the operation of threading the needle.

One of the edges of the needle-eye, lettered G, is made much larger than the other edge, F, thereof, and the point or extremity of the needle is in line with the edge G, or substantially so, whereby the needle is caused to give a center thrust or stroke, which is very advantageous, as it tends to lighten the labor by reducing the resistance offered by the cloth or work to the passage of the thread therethrough, and also to prevent the needle from bending and breaking, as is obvious.

It will thus be seen that I provide an improved needle for sewing-machines which can be easily and expeditiously threaded without straining the eyes of the operator and taking up his or her time, and that a simpler and more efficient needle is presented, which possesses superior advantages over others which have preceded it in the points hereinbefore referred to.

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

1. A sewing-machine needle the eye of which has inclined or beveled walls *f*, the said needle being provided with the channel C on one of its sides, of gradually-increasing depth as it approaches the eye of the needle, and passing into the said walls, substantially as described.

2. A sewing-machine needle the eye of

which has inclined or beveled walls *f*, said needle being provided with channels or grooves upon opposite sides, of gradually-increasing depth as they approach the eye, and passing into said walls, substantially as set forth.

3. A sewing-machine needle the eye of which has inclined or beveled walls, said needle being provided with channels or grooves upon opposite sides, of gradually-increasing depth as they approach the eye, and passing into said walls, one of said grooves being longer than the other, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ARTHUR S. HUTCHINSON.

Witnesses:
A. J. CONE,
I. J. HALSTED.