F. JOHNSON.

SEWING MACHINE NEEDLE.

APPLICATION FILED APR. 5, 1906. RENEWED APR. 26, 1909.

925,813. Patented June 22, 1909.

Fig. 2.

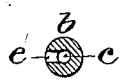


Fig. 1.

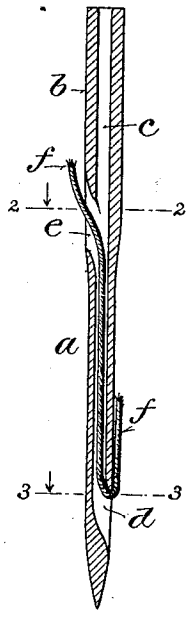


Fig. 4.

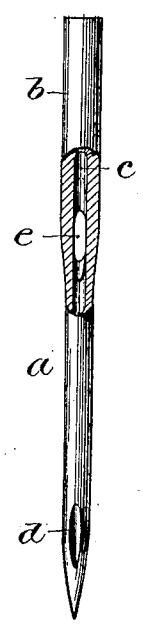
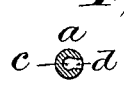


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRITZ JOHNSON, OF RACINE, WISCONSIN.

SEWING-MACHINE NEEDLE.

No. 925,813. Specification of Letters Patent. Patented June 22, 1909.

Application filed April 5, 1906, Serial No. 309,969. Renewed April 26, 1909. Serial No. 492,313.

To all whom it may concern:

Be it known that I, FRITZ JOHNSON, a citizen of the United States, residing at Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Sewing-Machine Needles, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

The main object of this invention is to prevent the rubbing, cutting and breaking of the thread in passing with the needle through the work, particularly in sewing thick, heavy or stiff fabrics or material.

It consists in certain novel features of construction as hereinafter particularly described and pointed out in the claims.

In the accompanying drawing like characters designate the same parts in the several figures.

Figure 1 is an enlarged axial section of a needle embodying the present invention; Fig. 2 is a cross section on the line 2, 2, Fig. 1; Fig. 3 is a cross section on the line 3, 3, Fig. 1, and Fig. 4 is a side elevation of the needle as viewed from the right with reference to Fig. 1, a part of the needle adjacent to the upper eye being broken away.

The needle comprises a tubular stem or body *a* and a shank *b* at the end opposite the point for attaching it to the needle bar of a sewing machine.

For convenience of manufacture the bore *c* may extend through the shank *b* as well as the stem or body *a* of the needle to the eye *d* adjacent to the point.

Adjacent to the shank *b* the needle is formed, preferably on the opposite side from the eye *d*, with an eye *e* through which the thread *f* passes into the bore *c*, as shown in Fig. 1.

The eyes *d* and *e* are elongated lengthwise of the needle and enter the bore *c* obliquely to facilitate threading the needle. The edges of the needle, particularly at the upper end of the eye *d*, are rounded, as shown in Fig. 1, to prevent cutting or injuring the thread.

With a needle constructed as herein shown and described, the thread passing into the needle through the eye *e*, and thence through the longitudinal bore *c* to the eye *d* near the point, is carried out of contact with the work before it issues from the eye *d* near the point. The cutting or breaking of the thread incident to the operation of needles as usually constructed in being thrust and withdrawn with the needle through the work, particularly when sewing closely woven or heavily sized fabrics or stiff material, are thus prevented.

With some needles it is necessary to make both eyes on the same side, and I do not wish to be understood as limiting my invention to the location of the eyes on opposite sides in claims which do not expressly include such feature.

I claim:

1. A sewing-machine needle having a longitudinal bore and lateral eyes opening into the bore adjacent to the shank and point of the needle, the body of the needle between the eyes having the form of a closed tube substantially as described.

2. A sewing-machine needle having a longitudinal bore and eyes opening into the bore on opposite sides of the needle, one near the point and the other adjacent to the shank, the body of the needle between the eyes having the form of a closed tube substantially as described.

3. A sewing-machine needle having a tubular stem and elongated eyes opening obliquely into the bore of the needle, one near the point and the other adjacent to the shank, the body of the needle between the eyes having the form of a closed tube substantially as described.

In witness whereof I hereto affix my signature in presence of two witnesses.

FRITZ JOHNSON.

Witnesses:
ALBERT ELLINGER,
DELIA BOETTEKER.