

M. J. C. NYBORG.
SELF THREADING SEWING NEEDLE.
APPLICATION FILED NOV. 21, 1907.

900,195.

Patented Oct. 6, 1908.

Fig. 4.

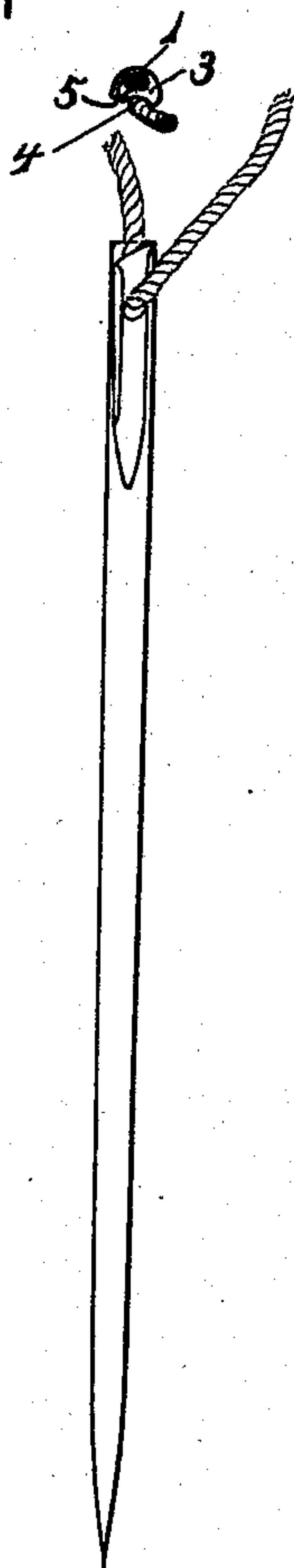


Fig. 5.

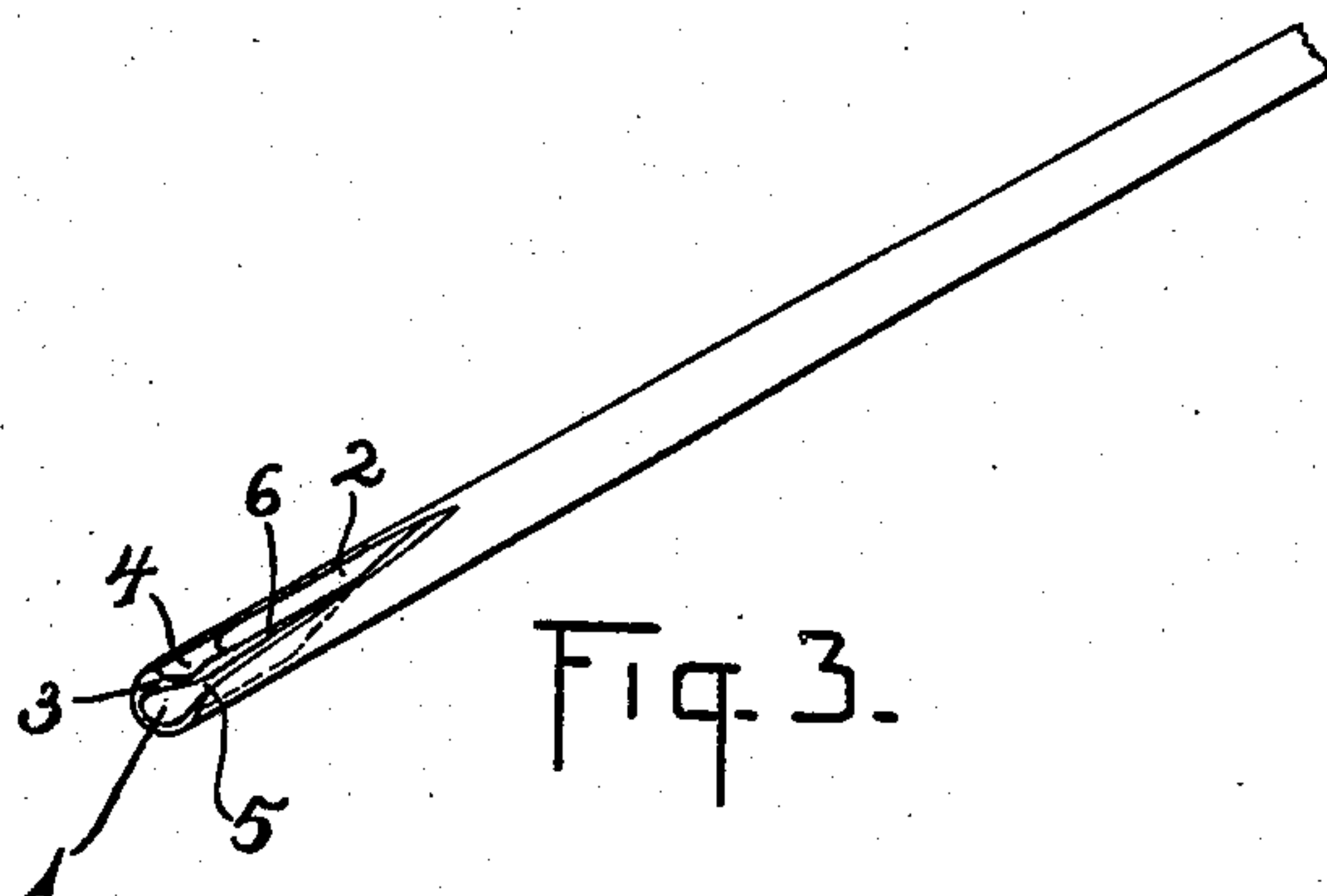
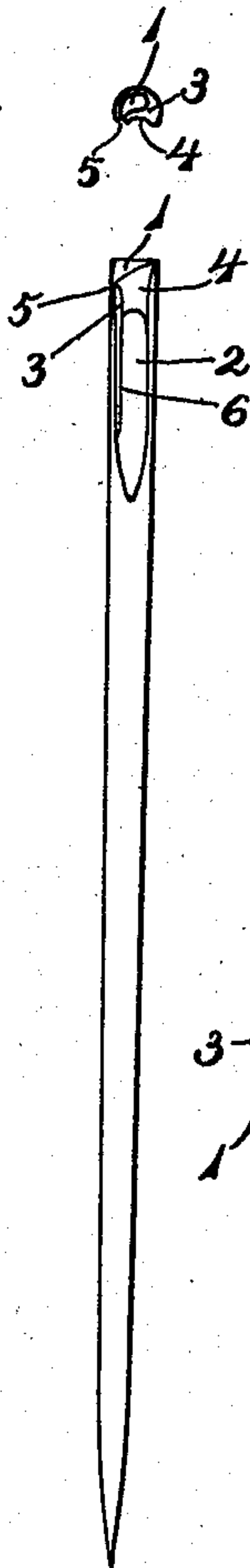


Fig. 3.

Fig. 1.

Fig. 2.

WITNESSES

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SELF-THREADING SEWING-NEEDLE.

No. 900,195.

Specification of Letters Patent.

Patented Oct. 6, 1908.

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To all whom it may concern:

Be it known that I, MARINUS J. C. NYBORG, a citizen of the United States, residing at the city of Minneapolis, in the county of Hennepin and State of Minnesota, have made certain new and useful Improvements or an Invention in Self-Threading Sewing-Needles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others to use the same.

The present invention relates to improvements in hand-sewing needles, especially those styled self-threading needles; and the objects in view are,—first, the provision of means for preventing the friction upon that portion of the thread that is in contact with the needle during the operation of stitching; second, the provision of means for preventing or necessitating the thread being passed endwise through a transverse eye or a channel for the thread to be attached to the needle.

The invention consists in certain novel construction, combinations and arrangements of parts, as will hereinafter be fully described and claimed.

These objects are obtained by the employment of a needle comprising a main body portion, formed with a suitable cylindrical channel entering at the head end at one side of the center and passing longitudinally of the needle for a desired distance, and then to obliquely cross the axis in a direction at an angle to the axis of the needle slanting away from the axis and away from the head of the needle, to emerge from the side of the needle, a longitudinal side groove being formed on the side of the needle directly between the emergency of the cylindrical channel and the head end of the needle passing away from the emergency of the cylindrical channel and out of the head end of the needle, and an inwardly tapering open-ended slot being formed to intersect with the said cylindrical channel by cutting through the crust on the side of the needle, and alongside the point of emergence in a direction beginning at the same side of the center at the head end as the said cylindrical channel to follow in line of the farthest point of said cylindrical channel where it emerges from the side of the needle for the purpose of constructing a hook and a recess for the thread to attach to the needle when in operation of stitching. This kind of needle

being formed of steel or material capable of springing or giving slightly in its organic structure.

This needle is designed for tailoring purposes, although it is of course within the scope of the invention to employ the same for any of the common purposes for which a needle may be used, and many slight alterations from the detailed structure of the needle may be employed within the spirit and scope of the present invention.

In the accompanying drawings, Figure 1 represents a view in side elevation of the needle threaded; Fig. 2 represents a similar view of the needle showing the construction of the needle without being threaded; Fig. 3 represents a perspective view of the needle, minus the point end of the same, embodying the organic structure and features of the present invention. Fig. 4 represents a plan view of the head of the said needle, showing the thread in place; Fig. 5 represents a similar plan view of the head without the thread, showing the cross section of the construction of the needle.

Throughout the several views like numerals indicate like parts.

N numeral 1 indicates the said cylindrical channel entering the needle at its head at one side of the center of the needle and running parallel to the axis of the needle for a desired distance, and gradually crossing the center in the continuous slanting position and emerging from the side of the needle, thus forming opening designated by numeral 2 as is best shown in Fig. 3. From this point of emergence or opening 2 of the cylindrical channel 1, a longitudinal side groove, designated by numeral 4, is formed in the side of the needle running out of the head end of the needle at the point of emergence, leaving a thin portion of the center stock of the needle designated by numeral 3.

An inwardly tapering open-ended slot being formed to intersect with the said cylindrical channel 1, by cutting through the crust of the needle shell on the side of the needle, at the point indicated by numeral 5, and passing therefrom and running alongside of the said longitudinal side groove and passing up to the point where the said cylindrical channel emerges from the side of the needle as designated by numeral 2, which is best shown in Fig. 3, thus forming the hook indicated by numeral 6. A slight portion of the said hook at the head end of the needle

is cut bevel and tapered in such condition to make a guiding surface for the passage of the thread to be readily attached to the needle, which is most noticeable in Figs. 1 and 2.

5 The point end of this hook is bent towards the opposite side of the said open-ended slot and bent in condition so that the point end of this hook is within the walls of the needle to prevent the point end of said hook from lac-
10 erating or tearing the material that the needle passes through when in operation of stitching.

The method of threading the needle, is to draw the thread into the inwardly tapering
15 open-ended slot at the head end, designated by numeral 5, and pull the thread toward the point end of the needle until the thread has passed the point end of the said hook, designated by numeral 6, which will cause one sec-
20 tion of the thread to pass into said cylindrical channel, owing to the tapered condition of said slot, then to reverse said motion and pull the thread along the reverse side of the said hook 6 towards the head end of the needle, the
25 thread will then be attached to the needle; hence the two portions of the thread are brought into two parallel planes with the main body of the needle and extend out of the head end of the needle, one section of the

thread extends out of said cylindrical chan- 30
nel 1 and the other section of the thread lies in groove 4 when the needle is in operation of stitching. The section of the thread that lies in groove 4 is utilized for sewing the ma-
35 terial, the other section of the thread that extends out of the said channel 1, practically only serves the purpose of firmly holding the thread attached to the needle.

Having thus fully described my invention, what I claim as new and desire to secure by 40
Letters Patent is,—

A needle comprising a main body portion formed with a channel entering the head end of the needle passing and emerging from the side of the needle, and having an inwardly 45
tapering open-ended slot connecting with said channel, and provided with a tapered bent pointed hook or spring formed integral with the main body portion of the needle and having a longitudinal side groove, substan- 50
tially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

MARINUS J. C. NYBORG.

Witnesses:

CARL A. PETTERSON,
OSCAR P. GUSTAFSON.