

(No Model.)

T. A. SOMDAL.
NEEDLE THREADER.

No. 553,080.

Patented Jan. 14, 1896.

Fig. 1.

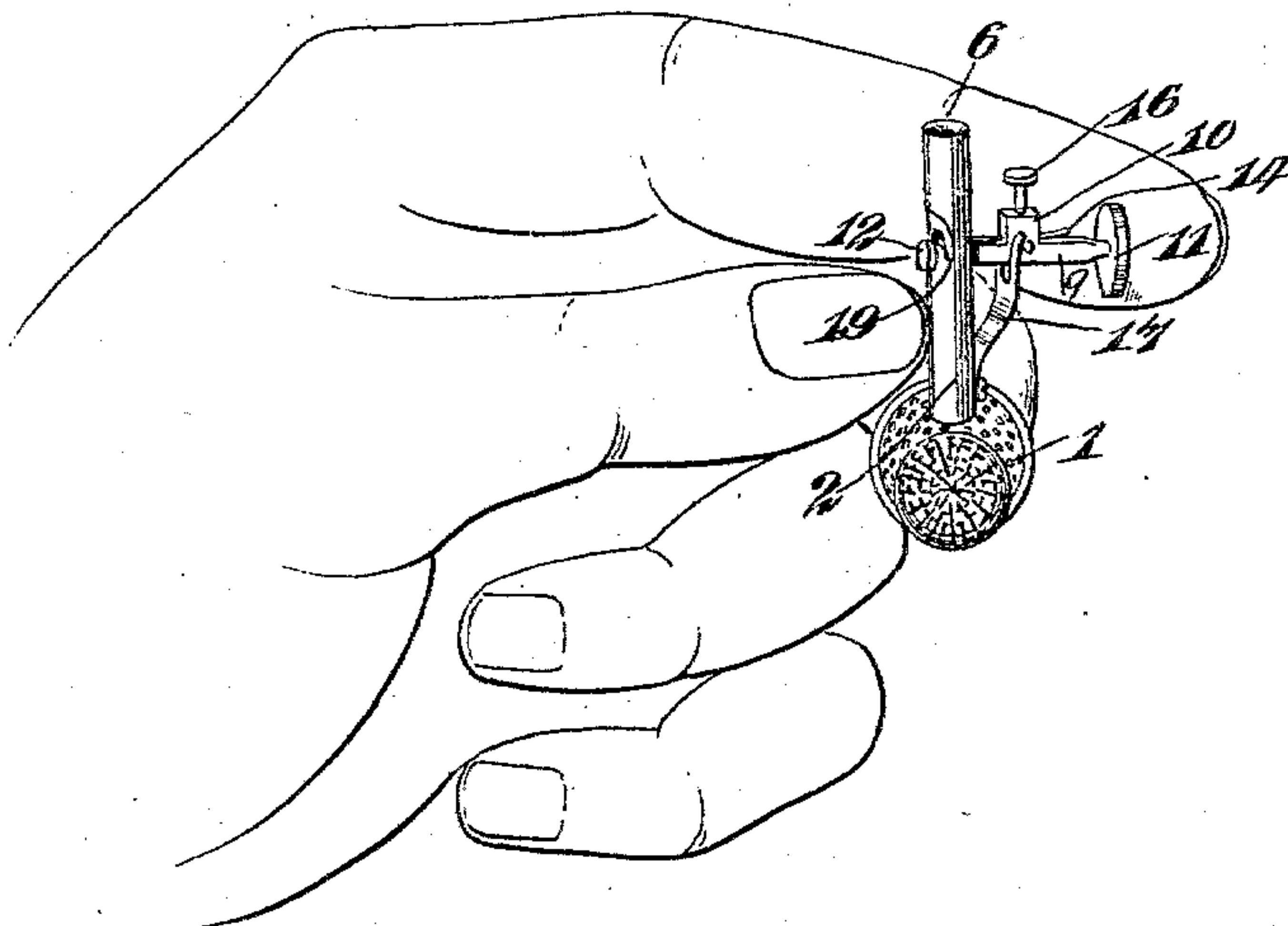


Fig. 2.

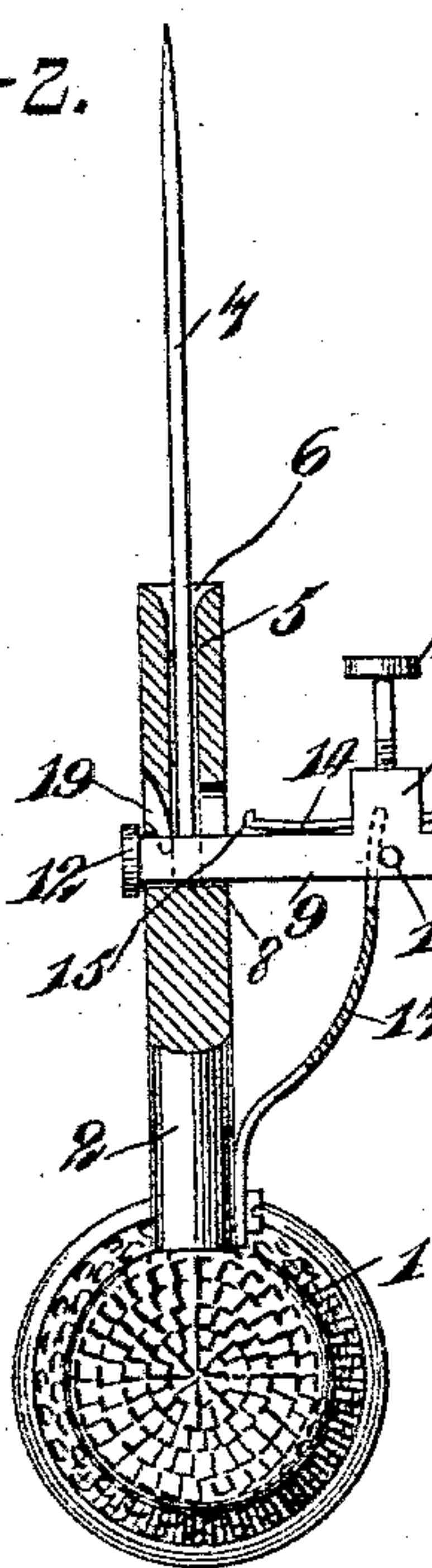


Fig. 3.

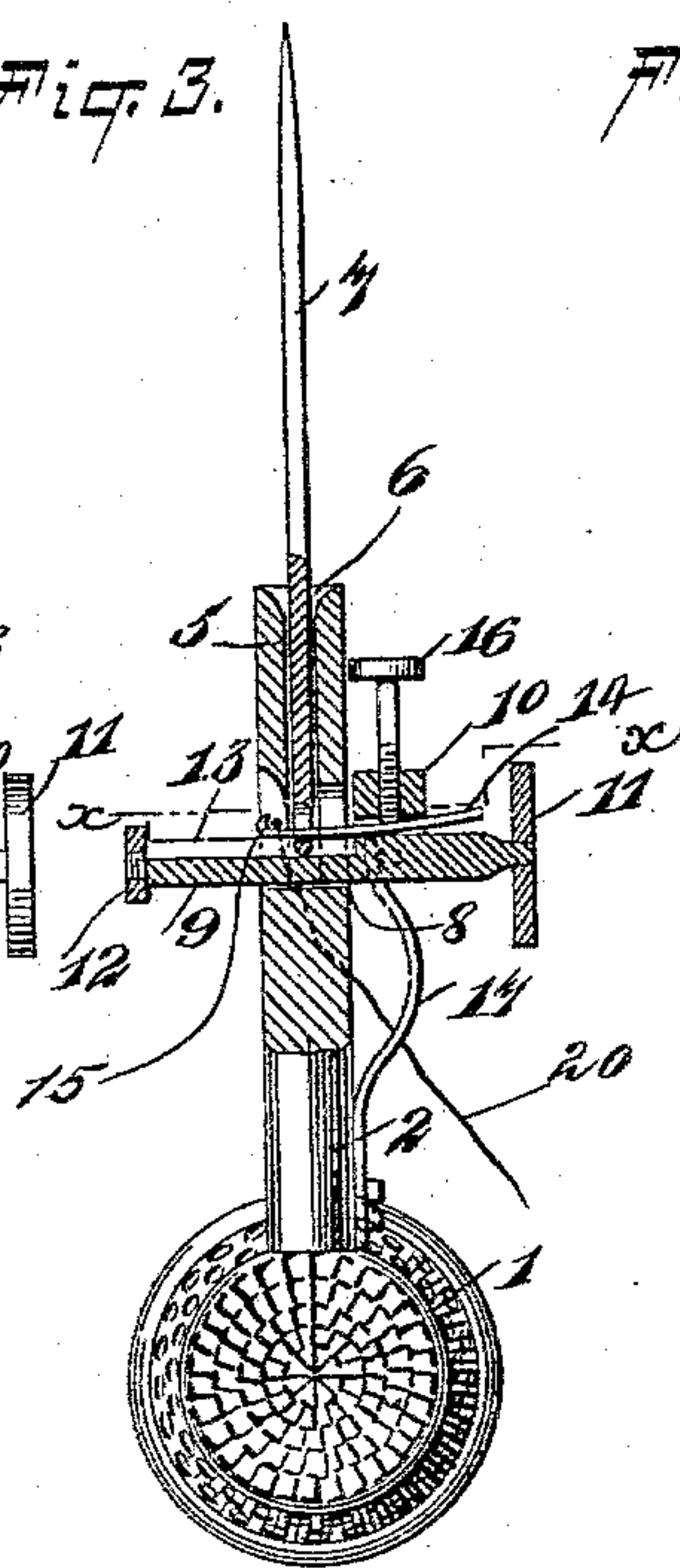


Fig. 4.

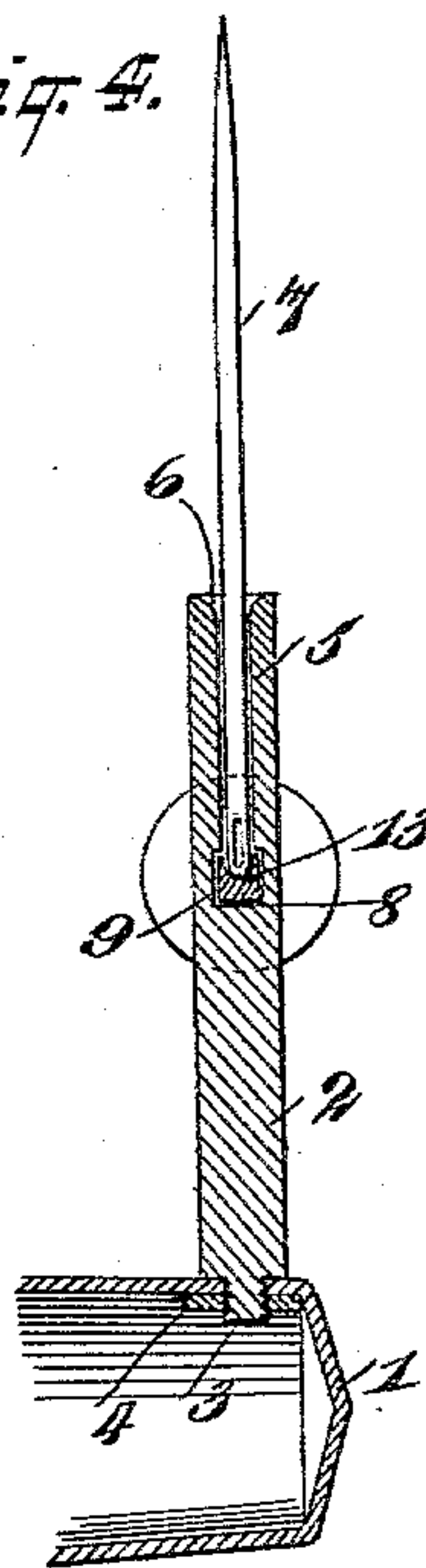
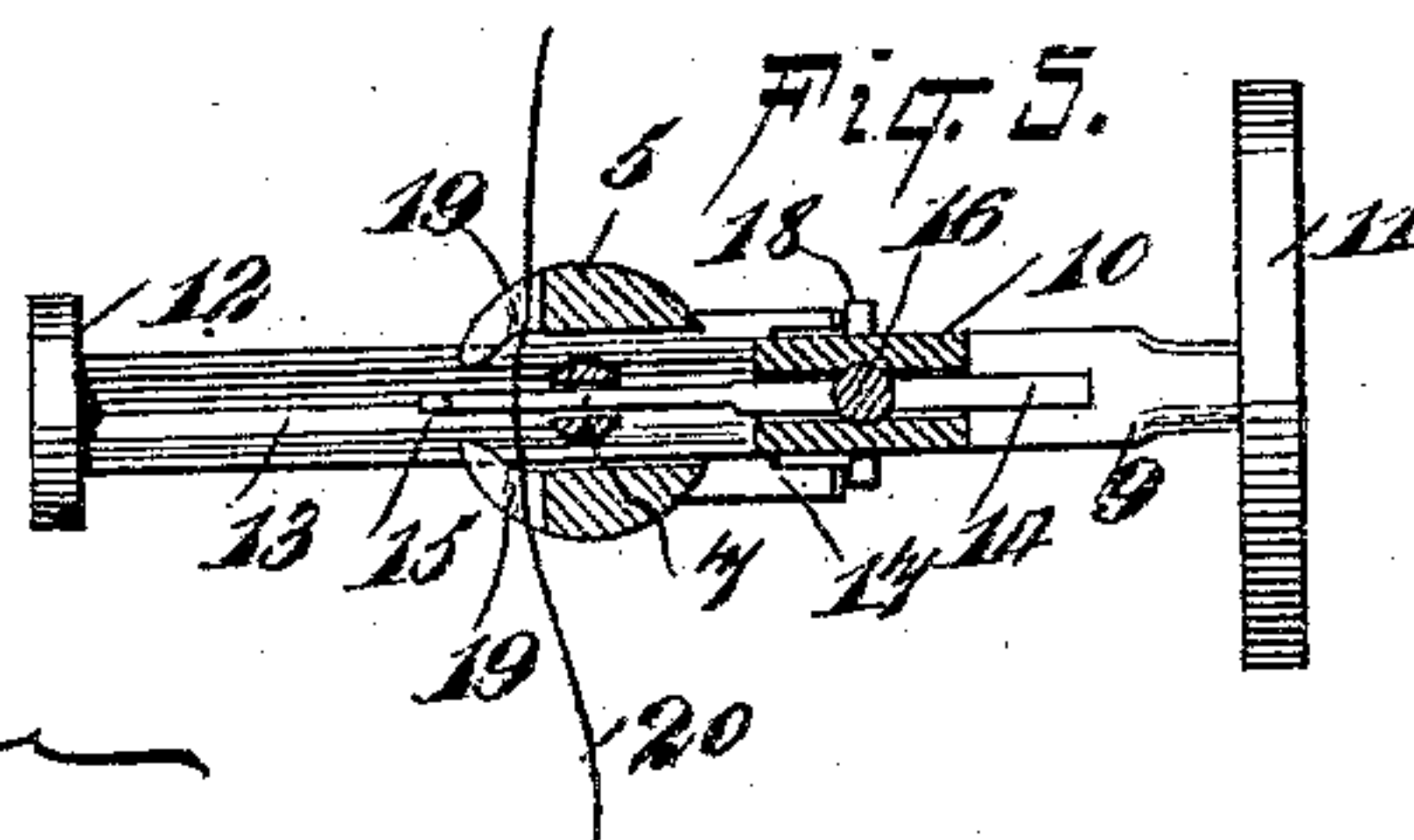


Fig. 5.



WITNESSES:

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TRULS A. SOMDAL, OF MANSFIELD, ILLINOIS.

NEEDLE-THREADER.

SPECIFICATION forming part of Letters Patent No. 553,080, dated January 14, 1896.

Application filed August 27, 1895. Serial No. 560,677. (No model.)

To all whom it may concern:

Be it known that I, TRULS A. SOMDAL, of Mansfield, in the county of Piatt and State of Illinois, have invented a new and Improved Needle-Threader, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in needle-threading devices, and has for its object to provide a device of this character, of a simple and inexpensive construction, adapted to be attached to a thimble such as is ordinarily used in sewing and arranged to be conveniently and quickly operated to thread the needle without placing any strain upon the eyes of the operator such as is commonly caused by threading needles by hand.

The invention contemplates certain novel features of the construction, combination, and arrangement of the various parts of the device, whereby certain important advantages are attained and the device is made simpler, cheaper, and otherwise better adapted and more convenient for use than various other devices heretofore employed, all as will be hereinafter fully set forth.

The novel features of my invention will be carefully defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view showing the needle-threading device carried on a thimble and in position for use. Fig. 2 is an end view, partly in section, showing the needle in place in the holder in position to be threaded. Fig. 3 is a similar view showing the thread-carrying hook passed through the eye of the needle and in position to engage the thread. Fig. 4 is a sectional view taken longitudinally through the device, showing the construction of the slide and holder; and Fig. 5 is a transverse section taken through the device and the needle in place therein in the plane of the line $x x$, and showing the parts in the positions seen in Fig. 3.

In the views, 1 represents a thimble to which my improved needle-threading device is shown attached, and 2 represents the body portion of the needle-threading device, having a threaded stem 3 at its lower end ar-

ranged to pass through a perforation in the end of the thimble 1, inside which a nut 4 is arranged to screw on said stem, whereby the device is secured to the thimble.

The body portion 2 of the device is circular in cross-section, and the upper end thereof is tubular, as seen at 5 in the drawings, and forms the holder for the needle 7, being provided with an enlarged mouth 6, as clearly seen in the drawings, in order to facilitate the insertion of the needle therein when it is desired to use the device.

The lower end of the tubular portion 5 of the body portion 2 of the device is transversely slotted, as indicated at 8 in the drawings, to receive a slide 9 having at one end an enlargement 10 extending from its upper face and adjacent thereto a handle or thumb-piece 11, while at its other end said slide is provided with a stop 12 screwing on a thread formed on the end of the slide, as clearly shown in Fig. 3.

The slide 9 is provided in its upper face with a longitudinal groove 13, of a general V shape in cross-section, as seen in Fig. 4, and said groove 13 is adapted to form a seat for and to center the head of the needle inserted in the tubular holder, as clearly seen in said figure.

The enlargement 10 on slide 9 is perforated, as clearly seen in Figs. 3 and 5, in a direction parallel to the groove 13, and said perforation serves to receive the shank 14 of the thread-carrying hook 15, held in place therein by means of a screw 16 or the like, said hook 15 being so arranged as to pass back and forth through the eye of the needle 7 held in the holder when the slide 9 is reciprocated in its transverse aperture 8.

A spring 17 of suitable strength is secured at its lower end to the lower part of the body 2 of the device and has its upper end forked and arranged with its forks embracing the said stem 9 adjacent to the enlargement 10 thereof and adapted to be thereby pressed over toward the right, as seen in Figs. 1 and 2, these forks having engagement with pins 18 on said slide, whereby the parts are normally held in inoperative position.

The front side of the tubular portion 5 at the lower part thereof is provided with a slot 19 extending transversely across the front end of the passage 8 and forming hooks at opposite sides of said passage or aperture to re-

ceive and retain the thread 20, which is to be supplied through the eye of the needle.

In using the device the thread is passed across the notch or slot 19 and held by the hooks at opposite ends thereof, after which the needle is inserted head downward in the holder, being guided into position by means of the groove in the slide 9, said groove being curved or sloped on its sides to conform to the curve of the head of the needle. The engagement of the sharp edges of the needle-head with said sides of the groove will serve to turn the needle into proper position to permit the hook 15 to pass through its eye in case the needle be dropped into the holder in a wrong position and the slide 9 moved endwise by pressing on its head 11, so as to push hook 15 through the eye of the needle and cause it to engage the thread 20. When the slide is released, it is at once returned to its original position by the tension of the spring 17, whereby the hook 15 and the thread carried thereon will be drawn through the eye of the needle, after which the latter is removed from the holder.

The construction of the device as above described is extremely simple and inexpensive and affords a very convenient and useful device for use by persons employed in sewing at all times, since it is adapted to avoid all strain upon the eyes and nerves in threading needles in the ordinary way. It will also be evident from the above description of my invention that the same is susceptible of considerable modification without material departure from the principles and spirit of my invention, and for this reason I do not wish to be understood as limiting myself to the exact form of the device herein set forth.

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

1. A needle threader, comprising a tubular body having its hollow adapted to receive the needle and provided with a passage extending transversely through it and communicating with said hollow, a slide held in said transverse passage and adapted to support on its upper face the butt of the needle in the hol-

low, and a hook carried by the slide in position when said slide is moved to pass through the eye of the needle held in the holder, substantially as described.

2. A needle threader, comprising a tubular holder for the needle, having a transverse passage and a slot formed across the front part of said passage, to receive and hold the thread, a slide arranged to play through said transverse passage and having a grooved upper surface, and a hook on said slide arranged, when the same is moved, to pass through the eye of the needle, substantially as set forth.

3. A needle threader, comprising a tubular needle holder provided with a transverse slot, a transverse slide fitting in and projecting through the said slot, said slide having a grooved upper surface and provided with stops for limiting its movement, a hook secured to the upper surface of the slide and adapted to pass through the eye of the needle, and a spring engaging the slide for normally holding it out of operative position, substantially as described.

4. A needle threader, comprising a body portion having a tubular upper end and provided with a transverse slot at the lower end of the tubular portion, a grooved and spring pressed slide projecting through the slot and provided with a stop for limiting its outward movement, and a hook secured to the upper surface of the slide and adapted to pass through the eye of the needle, substantially as described.

5. A needle threader, comprising a body having a tubular upper end and a transverse slot at the lower end of the tubular portion, the lower end of the body being constructed for attachment to a thimble, a transverse and spring pressed slide projecting through the slot of the body and having a grooved upper surface, and a hook secured to the slide and adapted to pass through the eye of the needle, substantially as described.

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Witnesses:

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