

No. 652,175.

Patented June 19, 1900.

A. M. FELSON.
NEEDLE THREADER.

(Application filed Dec. 28, 1899.)

(No Model.)

Fig. 1.

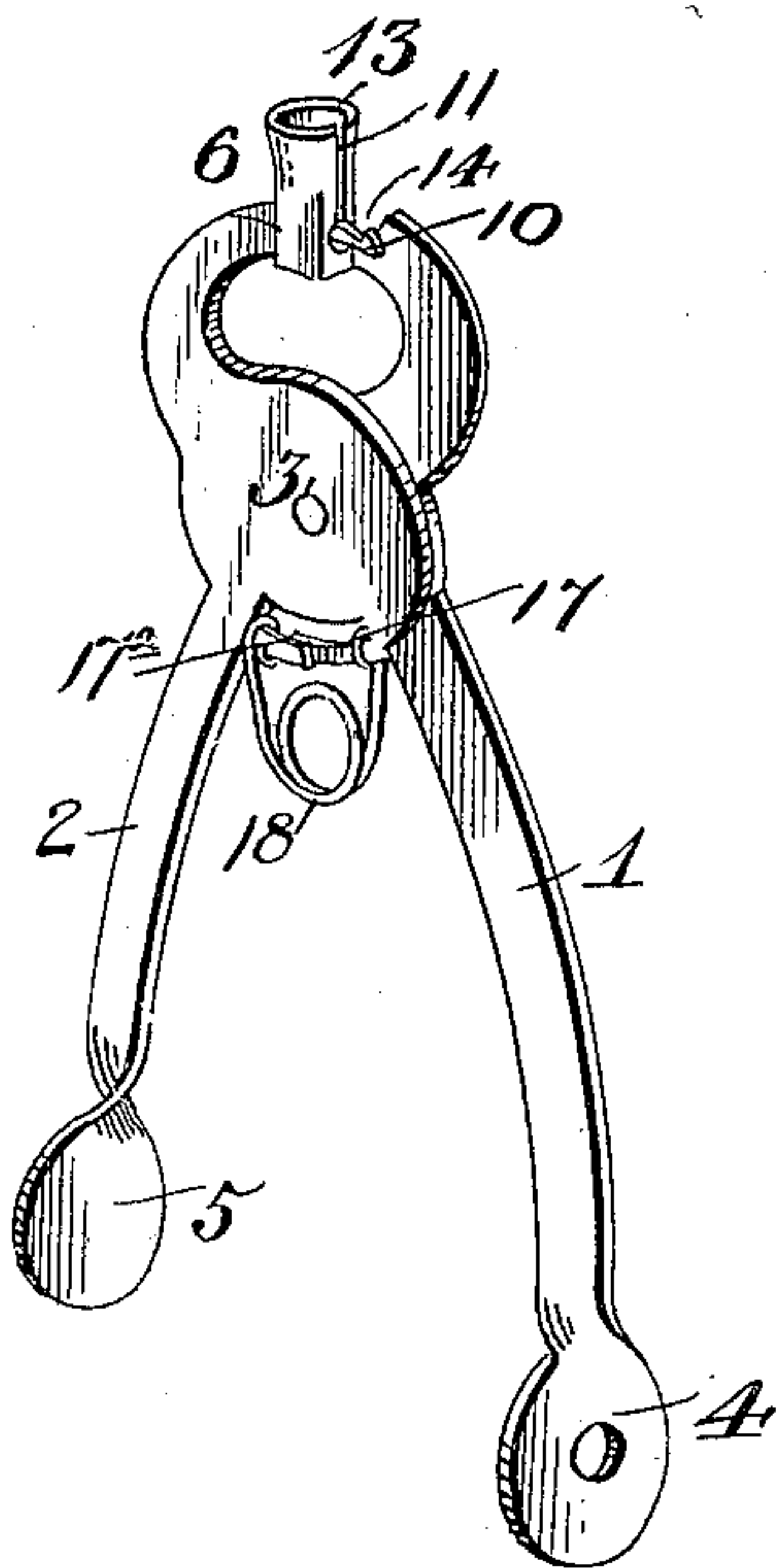


Fig. 2.

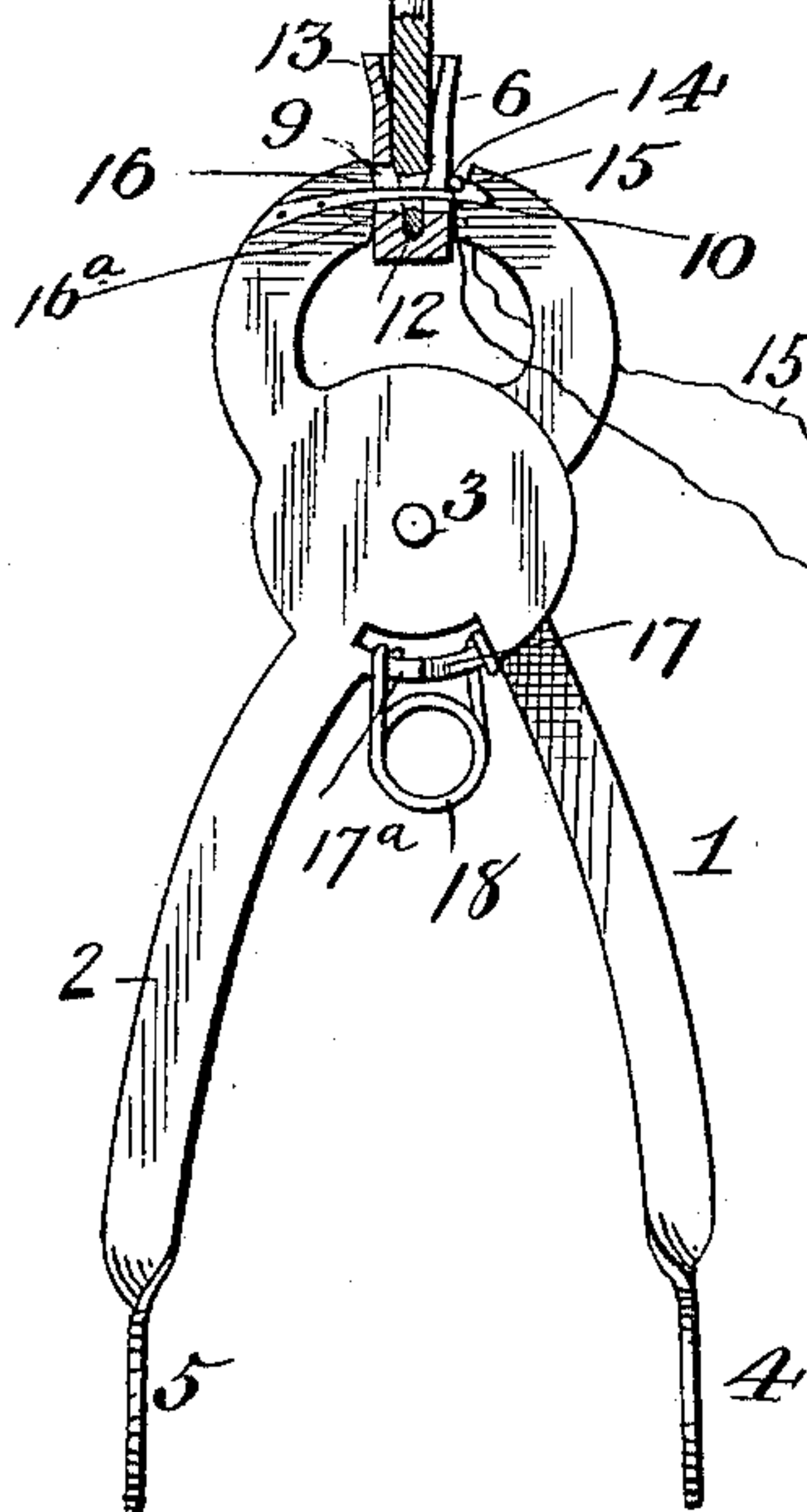


Fig. 3.

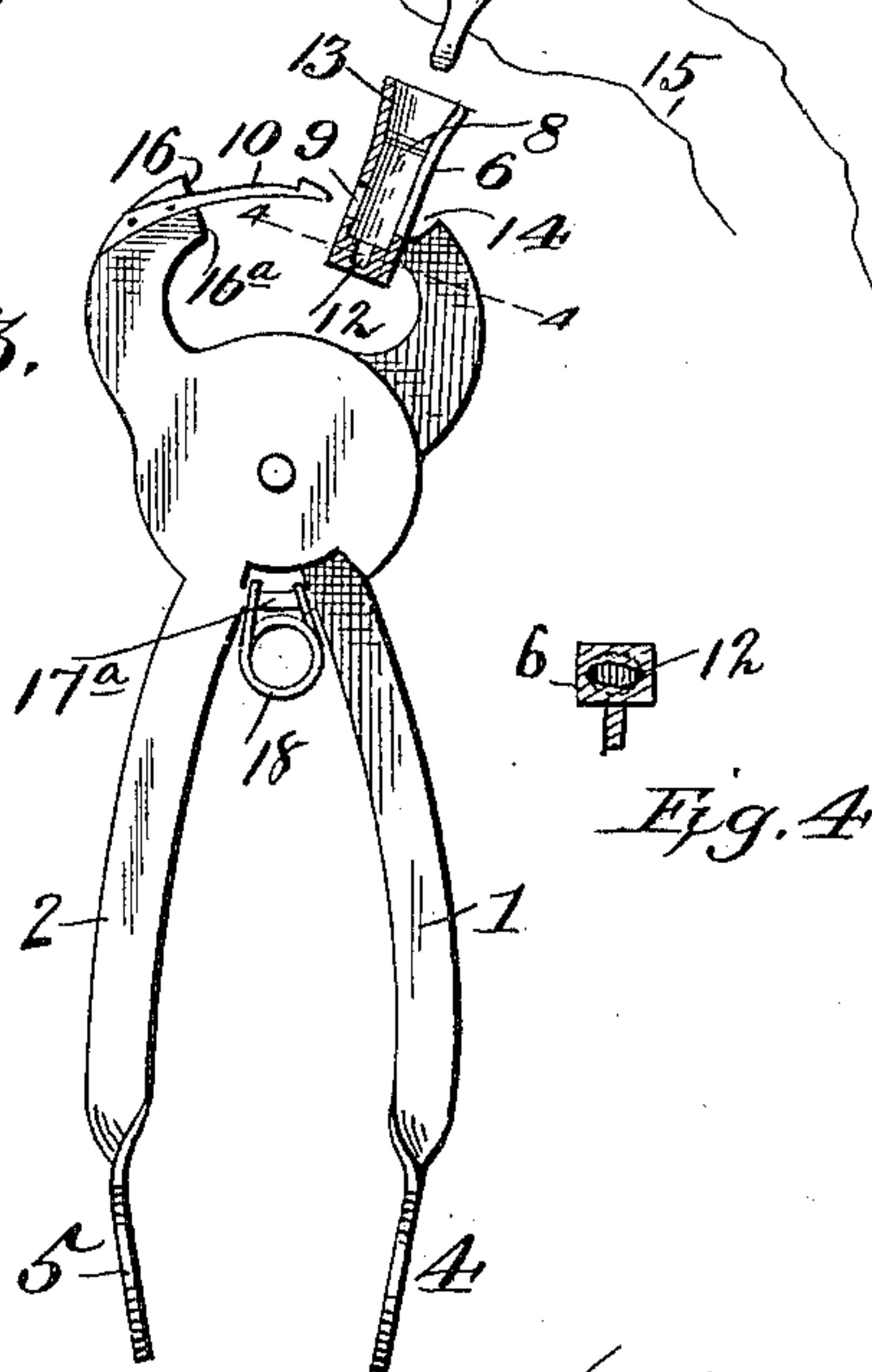


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

ARTHUR M. FELSON, OF GOUVERNEUR, NEW YORK.

NEEDLE-THREADER.

SPECIFICATION forming part of Letters Patent No. 652,175, dated June 19, 1900.

Application filed December 28, 1899. Serial No. 741,851. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR M. FELSON, a citizen of the United States, residing at Gouverneur, in the county of St. Lawrence and State of New York, have invented new and useful Improvements in Needle-Threading Devices, of which the following is a specification.

My invention relates to improvements in needle-threading devices, and has for its object to provide a device of this character of a simple and inexpensive construction and arranged to be conveniently and quickly operated to thread the needle without placing any strain upon the eyes of the operator such as commonly caused by threading needles. My device is of such simple and efficient construction that a blind person may easily learn to use it.

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.

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 of my device. Fig. 2 is a side elevation, partially in section, showing the needle in position to be threaded with hook and notch engaging thread. Fig. 3 is a similar view showing the threading-hook withdrawn from the transverse aperture. Fig. 4 is a section of the needle-tube on the line 4 4.

My device consists of two sheet-metal arms 1 2, suitably shaped and pivoted on rivet 3. The lower ends of said arms form handles, and they are turned at right angles and suitably shaped to provide finger-grips 4 5 for operating the device. The upper ends of said arms are curved to form jaws. The upper end of arm 1 carries, attached to it by brazing or otherwise, a slotted needle-tube 6, adapted to contain a needle 7, of ordinary construction, the longitudinal aperture 8 therein being limited by a transverse aperture 9, which forms a

passage for the threading-hook 10, enabling said hook to be passed through the eye of a needle inserted in 8. The tube is also provided with a slot 11, cutting the aperture 8 throughout its length and being limited by the transverse aperture 14. This slot enables the thread to be readily withdrawn with the needle after it has been threaded and obviates the danger of cutting or fraying it in so doing. Below the transverse aperture 9 and in alinement with the longitudinal aperture 8 is a needle-seat 12, consisting of an ellipsoidal recess provided to contain the rounded portion of the needle extending above the eye, the major axis of the ellipsoid being at right angles to the direction of the transverse aperture 9, thereby keeping the eye of the needle when inserted in the needle-seat in the proper position for threading. The width of the recess is such that the needle is prevented from turning after being so inserted. Projecting above the mouth of the tube 6 and integral therewith is a funnel-shaped portion 13, so formed as to facilitate the insertion of the needle into the needle-tube adjacent to the tube 6 and cut in the metal of arm 1, a notch 14 being adapted to act as a guide for the thread 15 when being engaged in hook 10. Arm 2 is fitted at its upper end with a threading-hook 10, secured thereto by brazing or otherwise, said hook being constructed of resilient material and the end suitably sharpened. Shoulders 16 16^a, formed at the end of arm 2, are provided to limit the movement of the hook 10 through the aperture 9 in order to bring the hook in proper position for engaging the thread 15. Tongues 17 17^a, projecting from arms 1 2 and integral therewith, are provided as attachments for spiral spring 18 and so constructed as to act as stops to limit the movement of the arms by coming in contact with the spring where fastened thereto. Spring 18 is provided to hold the device in inoperative position and to furnish a uniform supply of power to force the hook through the eye of the needle. This equable application of power obviates the danger of breaking the hook when using, and the action of the spring when the device is not in use prevents the instrument from opening and the hook becoming entangled and broken.

The operation of my device in threading needle-

dles is as follows: The instrument is grasped by finger-grip 3 between the thumb and fourth finger of the left hand and held with notch up. Pressure is then applied to finger-grip 4 with the third finger of same hand. The needle 7 is then inserted in the tube 6 and grip 4 released, thus permitting the spring 18 to react and force the hook 10 through eye of needle. A piece of thread 15 is then grasped in the right hand and looped and the loop engaged in notch 14 and drawn taut across hook-bar, thereby bringing the thread in the position shown in Fig. 2. Pressure is then applied to finger-grip 4 by the third finger of the left hand, and the thread is drawn through the eye of needle. The instrument is still held in its upright position and the needle withdrawn, the thread slipping easily up and traversing slot 11. After the needle has been pulled out four or five inches the handle 4 is again released and the remaining thread drawn out. I would emphasize the advantages of one being able to use the third finger in operating my device. It greatly facilitates its effective operation, especially when heavy thread is used in small needles.

I do not wish to be limited as to details of construction or to any specified material. The spring may be attached to tongues, so as to completely inclose them, and the meeting of the ends of same acts as stops.

My device may be manufactured of any suitable material and so proportioned as to perform the functions herein indicated and described.

I claim—

1. In a needle-threading device the combination of pivoted arms, a spring attached to said arms intermediate the same, a needle-tube longitudinally slotted and transversely apertured with a needle-seat therein and a funnel-shaped portion formed thereon, attached to one of said arms, a thread-guide on the same arm, and a threading-hook mounted on the other of said arms.

2. A needle-threading device consisting of pivoted arms, a needle-tube transversely apertured attached to one of the jaws formed on said arms, a threading-hook attached to the other jaw, an expanding spring placed intermediate the handles formed on said arms whereby the threading-hook is normally held in said transverse aperture, and attachments for said spring, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ARTHUR M. FELSON.

Witnesses:

ARTHUR W. ORVIS,
H. WALTER LEE.