

Oct. 9, 1923.

A. L. HANSEN

1,469,906

TUFTING NEEDLE

Filed Aug. 26, 1921

Fig. 1

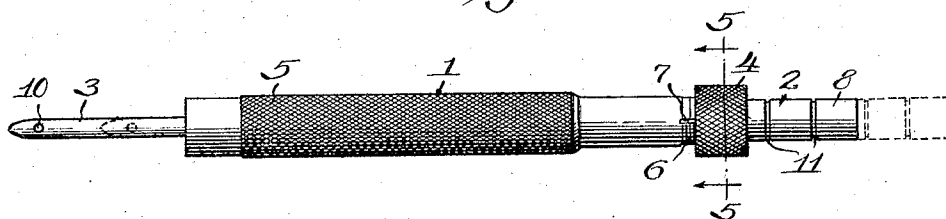


Fig. 2

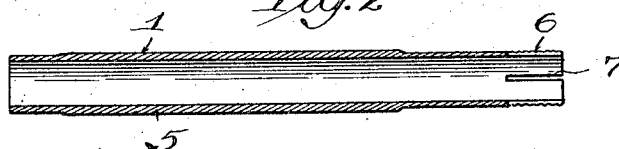


Fig. 3

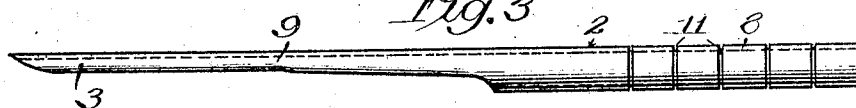


Fig. 4

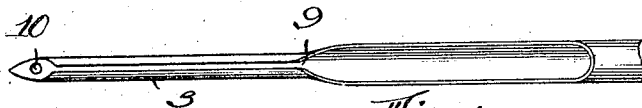
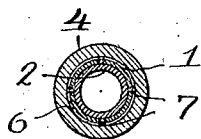


Fig. 5



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UNITED STATES PATENT OFFICE.

AUGIE L. HANSEN, OF EVANSTON, ILLINOIS.

TUFTING NEEDLE.

Application filed August 26, 1921. Serial No. 495,646.

To all whom it may concern:

Be it known that I, AUGIE L. HANSEN, a citizen of the United States, and a resident of Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tufting Needles, of which the following is a specification.

This invention relates to improvements in tufting needles, and more particularly to needles adapted for use in embroidering and other fancy work involving the application of ornamental figures upon fabric.

The object of the invention is to provide a useful tool or implement designed to be used by the worker in making successive perforations in the fabric, and simultaneously passing a thread, or yarn, thru the perforation, leaving a loop on the opposite side to be subsequently treated depending on the design or character of work being done. A further object of the invention is to provide a needle of the character described which will permit of an adjustment; namely, in the length of the penetrating portion of the needle, and therefore of the length of the loop passed thru the fabric, such adjustment being desirable for working upon fabrics of varying thickness. A preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of the needle as assembled,

Figure 2 is a detailed view in longitudinal section of the outer shell of the needle,

Figure 3 is a view in elevation of the internal member constituting the needle proper, or penetrating implement,

Figure 4 is another view in elevation of the needle proper, and

Figure 5 is a cross-sectional view taken on line 5—5 of Figure 1.

The needle or complete implement comprises in general a tubular member 1 in the nature of an external member forming the portion which is held in the hand of the worker in using the same, an internal tubular member somewhat longer than the external member 1, and telescoping therein, one end of said internal member being reduced in size and pointed to form a sharp penetrating member 3, and finally, a screw collar 4 mounted at the upper end of the external member 1, and acting to lock the ex-

ternal and internal members together in various positions of adjustment.

As clearly shown in Figure 2, the external member or sleeve is an elongated tubular shell having a somewhat enlarged portion 5 intermediate its end, the surface of which is knurled to prevent the implement from slipping in the fingers of the worker while in use. At the rear or upper end of the external sleeve 1 is provided a screw threaded portion 6 upon which is mounted the screw collar 4, having its surface knurled to permit the same to be more readily rotated by the fingers. Thruout the screw threaded portion the external sleeve is split longitudinally by the provision of a series of kerfs 7 spaced circumferentially about the screw threaded end portion of said sleeve, thereby affording a certain degree of flexibility for the purpose hereinafter to be pointed out.

The internal member or needle proper 2 is likewise a tubular member consisting of a shank portion 8 adapted to fit snugly within the external sleeve 1 and to slide longitudinally therein. Thruout the forward portion of the shank 8 a substantial part of the metal is cut away in such a manner that a tapering reduction is provided, terminating some distance short of the forward extremity of the internal member; namely, at 9. At this point, the metal is bent into substantially tubular form, providing a round penetrating portion 3 of considerably reduced diameter. The extremity is beveled to provide a sharpened point, and immediately adjacent the point is formed an eye 10. As clearly shown in Figure 3, the penetrating portion is substantially one-half the diameter of the tubular member 2, and is offset from the axis thereof. Thruout the shank portion 8 are provided a series of equidistantly spaced annular grooves 11 cut in the surface of the tubular member, and serving to determine the adjustment of the internal member, as will now be described. The external and internal members are assembled as clearly shown in Figure 1, the penetrating implement 3 projecting from the forward end of the external member, and the shank portion 8 engaging the rear end portion of the external member 1. The internal member 2 is slidable within the external member, providing the screw collar 4 is unscrewed, thus per-

mitting a free sliding movement between the two parts. The presence of the grooves in the surface of the internal member provides a series of shoulder-like obstructions 5 which are readily noticeable in the sliding of the parts relative to each other, the tendency being for the internal member to come to rest when any one of the grooves come in contact with the adjacent end of the external member, thus constituting an index 10 as to the length of the penetrating portion 3 projecting from the opposite end of the external member. In this manner, therefore, a predetermined length of the penetrating portion 3 can be readily determined, 15 and the proper adjustment having been made, the screw collar 4 is screwed tightly in place, thus contracting the split portion 6 and locking the two parts together. 20 In operating the needle or implement, the thread or yarn is passed longitudinally thru the entire length of the internal passage, entering from the rear end and passing thru the eye 10. The desired length having been 25 determined to meet the requirements of the work, the needle is then repeatedly forced thru the fabric a distance which is limited by the forward end of the external member 1. As before suggested, with each penetration 30 and withdrawal of the needle of the thread or yarn, a loop is formed on the under side of the fabric, which loop remains after the needle is withdrawn. Thus it will be seen that any number of loops may 35 be formed by repeated penetrations of the fabric carried out in accordance with some pre-arranged design or pattern.

Having described the construction and advantages of the device embodying the invention, I claim:

1. A needle of the character described, comprising two telescopic tubular members, the internal member having a needle-like end portion adapted to project from one end of said external member, and a locking collar having screw threaded connection 45 with the opposite end portion of said external member, and operative to secure said members together.

2. A needle of the character described, comprising two telescopic tubular members, the internal member having a needle-like end portion adapted to project from one end of said external member, the opposite end of said external member being provided 55 with a threaded and split portion, and a locking collar mounted on said portion.

3. A needle of the character described, comprising two telescopic tubular members, the internal member having a needle-like end portion adapted to project from one end of said external member, and a screw collar mounted at the opposite end of said external member, the same being split lengthwise adjacent said collar, and said 65 internal member provided with a series of spaced annular grooves acting to determine the locking positions corresponding to the lengths of the needle end to be exposed.

In witness whereof, I hereunto subscribe my name this 24th day of August, A. D. 1921. 70

AUGIE L. HANSEN.