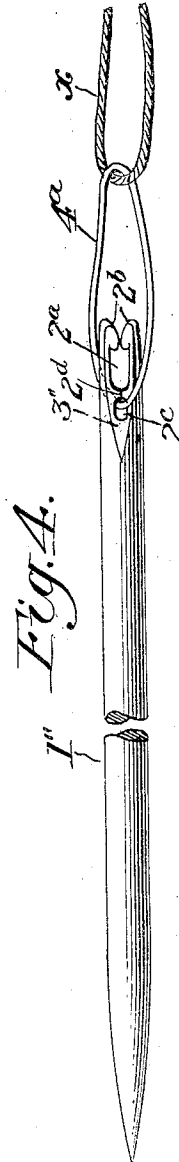
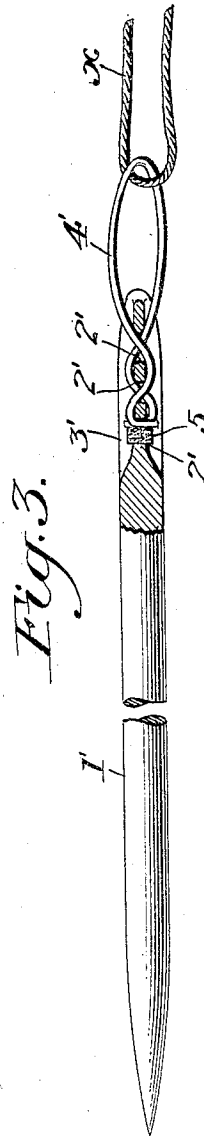
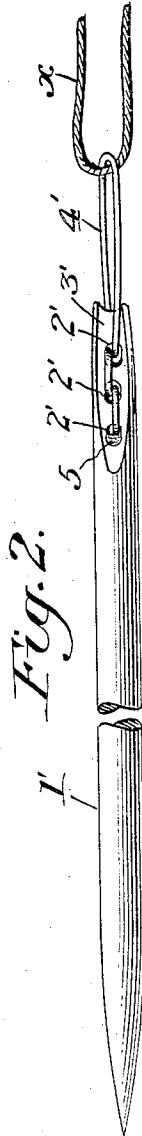
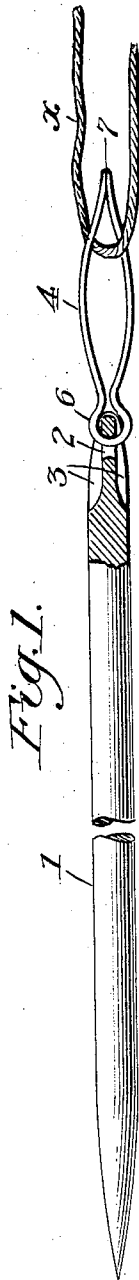


1,293,660.

Patented Feb. 11, 1919.



Inventor.
J. J. Armstrong
by *James C. Edwards & Co.*

UNITED STATES PATENT OFFICE.

JOHN JAMES ARMSTRONG, OF HONOLULU, TERRITORY OF HAWAII, ASSIGNOR OF ONE-HALF TO CHRISTIAN BOSSE, OF HONOLULU, TERRITORY OF HAWAII.

HAND SEWING-NEEDLE.

1,293,660.

Specification of Letters Patent.

Patented Feb. 11, 1919.

Application filed August 21, 1916. Serial No. 113,023.

To all whom it may concern:

Be it known that I, JOHN J. ARMSTRONG, a citizen of the United States, residing at Honolulu, county of Oahu, and Territory of Hawaii, have invented certain new and useful Improvements in Hand Sewing-Needles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hand sewing needles and has for its object to provide such needles with means adapted to facilitate the attachment of the sewing thread to the needles and to this end, the invention contemplates the application to each needle of a loop of flexible filamentary material secured in the eye thereof and which is of sufficient size when spread to afford a large opening through which the thread may be readily passed and which, when subjected to the ordinary tension developed in the operation of sewing, will securely hold the thread.

The invention is illustrated in the accompanying drawing, in which:—

Figure 1 illustrates in side elevation, a simple form of needle having a closed or continuous thread-receiving loop passing through the eye thereof, the eye end of the needle being shown in section;

Fig. 2 is a plan view of a modified form of needle having the free ends of the loop carried through several openings and secured in the innermost opening of the needle;

Fig. 3 is a side elevation, partly in section, of the needle and loop shown in Fig. 2; and

Fig. 4 is a side elevation of an open-eyed needle with a thread-receiving loop applied thereto.

The thread-receiving loop may be secured in the eye of the needle in any suitable manner, as the exact manner of attaching the loop to the needle is immaterial to the present invention. In the drawing, three different ways are disclosed of attaching the loop to the needle, but it will be understood that these are merely exemplary.

In Fig. 1, a needle of the hand sewing type is shown at 1 and has the usual eye 2 and the customary longitudinal depressions 3 in the vicinity of the eye. Heretofore, the eye 2 has been employed for receiving the sewing thread, but the difficulties of threading the

needle by passing the sewing thread through the eye are well known. In the present instance the eye 2 is utilized for receiving a loop 4, which, in the modification of Fig. 1, is preferably made of fine filamentary metallic material, such as spring steel. The ends of the loop may be passed through the eye 2 of the needle and then brazed, soldered, or otherwise united, as shown at 7. The purpose of the loop is, of course, to receive the sewing thread, indicated at *x*. The end of the loop 4 which passes through the eye 2 of the needle is preferably formed into a substantially circular supplemental loop 6, the purpose of which is to retain the needle at the end of the loop and to prevent the loop from assuming a position at right angles to the axis of the needle when the needle is passed through the fabric. The circular portion 6 of the loop causes the loop to follow the needle in longitudinal alinement therewith and, therefore, the loop does not interfere with complete passage of the needle and the loop through the material being sewed. The diameter of the circular portion 6 of the loop should not exceed the maximum diameter of the needle 1, or otherwise the passage of the needle and loop through the material would be interfered with. The loop 4 being made of fine flexible material readily collapses and contracts, as it is drawn through the material, and in no way interferes with complete passage of the needle, loop and thread through the hole formed in the material by the needle.

It will be noted that the manner of securing the ends of the loop in the modification of Fig. 1 causes the ends of the loop to converge. Therefore, the tension developed in the operation of sewing will cause the thread to become securely gripped by the tapering extremity of the loop.

In the modification of Figs. 2 and 3, the needle 1' is provided with a plurality of eyes 2', there being three of such eyes in the present instance. The longitudinal depressions corresponding with the depressions 3 in Fig. 1 are shown at 3'. The thread-receiving loop 4' for use with this type of needle may, if desired, be made of fiber, silk, hair, bristles, fine catgut, or any other suitable filamentary flexible material. The free extremities of the loop may be passed alternately in opposite directions through the several eyes 2', or, in other words, they may

be laced through the several eyes, as clearly shown in the drawing, and the extremital portions of the loop may be secured in the innermost eye 2' by any suitable means, such as a small plug 5 made of wood or any other appropriate material. This is merely one way for retaining the loop 4' attached to the needle and any other appropriate means may be resorted to for maintaining the extremities of the loop in their laced relation with the eyes of the needle.

In Fig. 4, the needle 1'' is of the open-eyed type, that is, its extremity is bifurcated, the two arms of the bifurcated part being shown at 2^b. These arms are so shaped that there occurs between them, a main eye 2^a and an innermost eye 2^c, these two eyes being in communication with each other when the arms 2^b are forced apart by means of a fine slit 2^d. The inherent resiliency of the arms 2^b retain them in contact, as shown in Fig. 4, but are designed to permit the ordinary sewing thread to be forced between them into the eye 2^a. In the present instance, the thread-receiving loop 4^a is forced between the arms 2^b and then into the innermost eye 2^c. In this modification, the loop may be made of metal, fiber or any other appropriate material and may be made continuous before it is attached to the needle.

All of the loops shown in the several modifications are of sufficient size to permit the sewing thread *x* to be readily passed through the loop and this may be accomplished much more readily and with greater ease than has been possible heretofore when

the sewing thread is passed through the eye of the needle.

It will be understood that the loop in each of the modifications may be made of any material suitable for the purpose and may be attached in any appropriate manner to the needle, as the material of which the loop is made and the manner of attaching the same to the needle are immaterial to the invention. The present invention contemplates the use of any kind of a thread-receiving loop attached to the needle which will facilitate threading of the needle.

The several forms of the needle and thread-receiving loop shown in the drawing have proved highly efficient in practice, and it has been found that all of the advantages of threading the needle through its eye are retained, but that the difficulties encountered are completely removed, as it is obvious that the sewing thread may be readily passed through the relatively large thread-receiving loop with practically no difficulty.

What I claim is:—

1. The combination with a needle, of a thread-receiving loop of flexible filamentary material mounted in the eye of the needle, and means to lock the ends of the loop within the eye.

2. The combination with a needle, of a thread-receiving loop of flexible material having its free ends passed through the needle eye, and a plug or filling applied to the eye to secure the ends of the loop therein.

In testimony whereof I affix my signature.

JOHN JAMES ARMSTRONG.