(No Model.)

J. K. KRIEG.

NEEDLE.

No. 354,018. Patented Dec. 7, 1886.

Fig. 1.

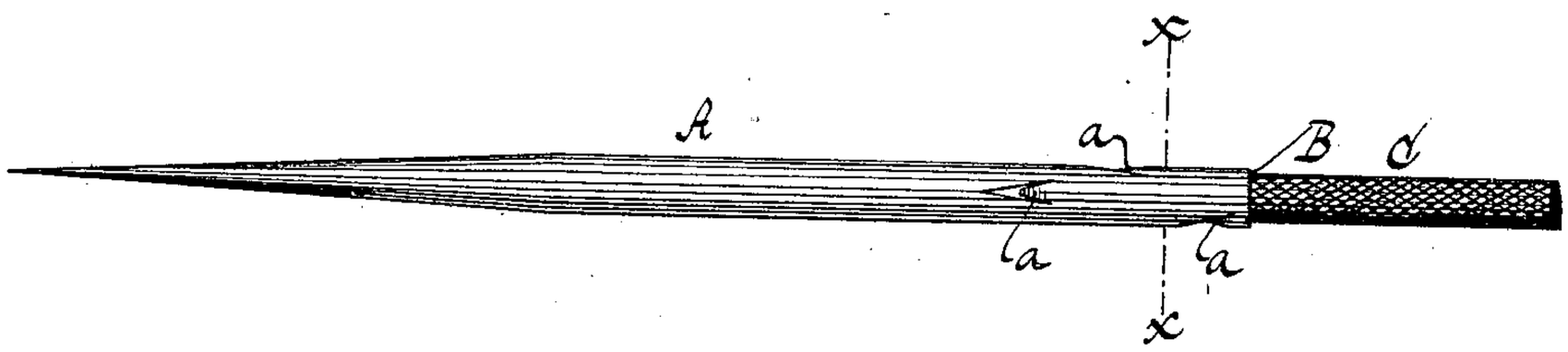


Fig. 2.

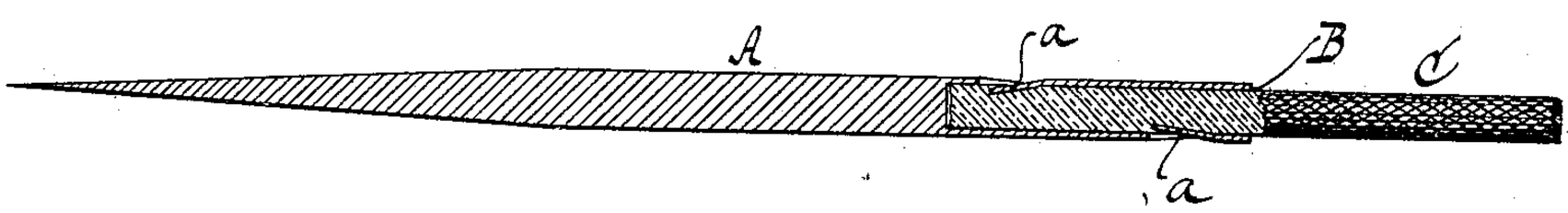


Fig. 4.

Fig. 3.

Fig. 5.

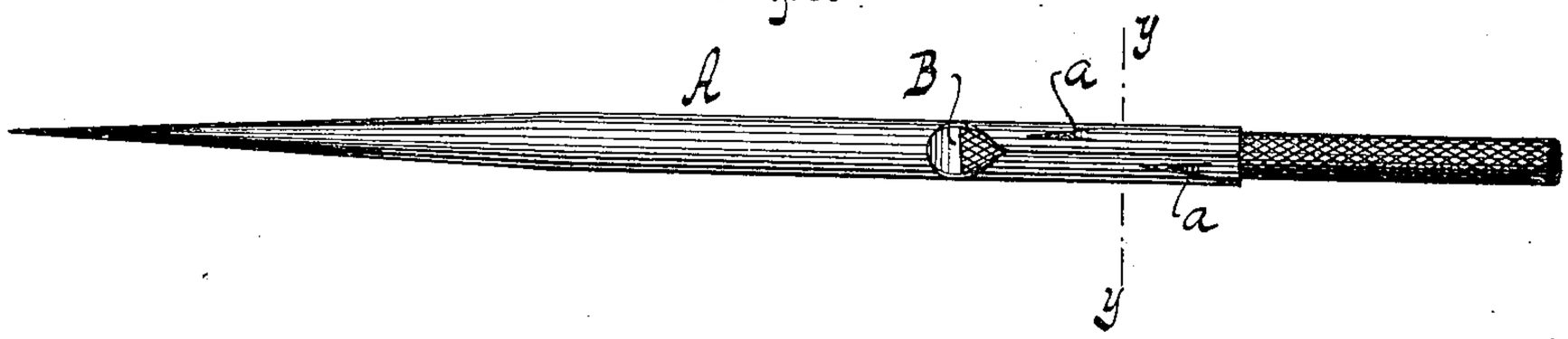
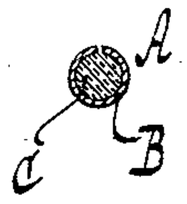


Fig. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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NEEDLE.

SPECIFICATION forming part of Letters Patent No. 354,018, dated December 7, 1886.

Application filed September 9, 1886. Serial No. 213,127. (No model.)

To all whom it may concern:

Be it known that I, JOHN K. KRIEG, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Needles, of which the following is a specification.

This invention has for its object to provide a novel needle for passing cord or thread through fabrics; and it consists in a needle having a point at one end and a recess at the other end, extending in the direction of the axis of the needle, and having its wall provided with incisions to form spurs for engaging the cord or thread inserted in the recess.

The invention is illustrated by the accompanying drawings, in which—

Figure 1 represents a side view of my needle. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse section in the plane *x x*, Fig. 1. Fig. 4 is a side view of a modification, showing the needle before the thread-receiving recess is formed. Fig. 5 is a side view of the same after the thread-receiving recess is formed. Fig. 6 is a transverse section in the plane *y y*, Fig. 5.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the body of the needle, one end of which is pointed, while on the other end is formed a thread-receiving recess, B, into which the thread or cord C is inserted. This recess may either be formed by boring a hole in the end of the needle in the direction of its axis, as shown in Figs. 1, 2, and 3, or it may be formed by first flattening the end of the needle and then rolling up the flattened portion, as shown in Figs. 4, 5, and 6.

To retain the thread or cord in the recess, I employ spurs or projections *a*, which are formed by making V-shaped incisions in the walls of the recess B, and bending the spurs so formed toward the interior of the recess, where their points will enter the thread and prevent the same from being withdrawn during the operation of sewing. The walls of the recess from which the spurs are formed being very thin, the spurs may, if desired, be formed in the recess before the thread is inserted. In this case, as the thread is forced into the recess, the spurs will spring out to allow its passage into the recess, but will enter the thread and retain it when drawn in the opposite direction.

If the recess B is formed as shown in Figs. 4, 5, 6, I may also form the spurs or projections on the flattened portion of the needle shown in Fig. 4 before the latter is rolled up, and then roll the latter around the thread, so that the projections enter the same and retain it in the recess thus formed.

Needles have been made of wire pointed at one end and having their heads bored in lengthwise, and provided with internal screw-threads for the insertion or screwing in of strings of catgut. Needles have also been made by making a point upon one end of a section of wire and longitudinally boring into the opposite end, then inserting in the bore the end of the thread or cord to be attached, then uniformly reducing the diameter of the metal surrounding the bore upon the thread or cord. In the construction of these needles very delicate operations are required, which can be carried out only by the most skillful workmen—such, for instance, as cutting a screw-thread into the bore in the head of the needle and screwing into the same a catgut, or such as reducing the diameter of the metal surrounding the bore uniformly upon the thread or cord. In the manufacture of my needle no expensive labor is required, since with the proper tools the entire work can be executed rapidly by boys or girls. A needle has also been composed with a point at one end, a recess at the other end containing teeth, and an arm pivoted in the body of the needle and having a recess at one end containing teeth, so that a cord can be held by clamping the recessed parts together by a slide. Such construction is not only expensive, but requires the presence of a clamping slide, which is an objectionable adjunct, and, besides, is liable to slip, and thus permit the pivoted arm to open, when obviously the cord would become detached. In contradistinction thereto all the parts of my needle are

formed integral of a single piece of metal, and the walls of the recess have incisions to form the spurs.

What I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, a needle having a point at one end and a recess, B, at the other end, extending in the direction of the axis of the needle and having its wall provided with incisions to form the spurs *a*, substantially as shown and described.

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

JOHN K. KRIEG. [L. S.]

Witnesses:

W. HAUFF,

A. FABER DU FAUR, Jr.