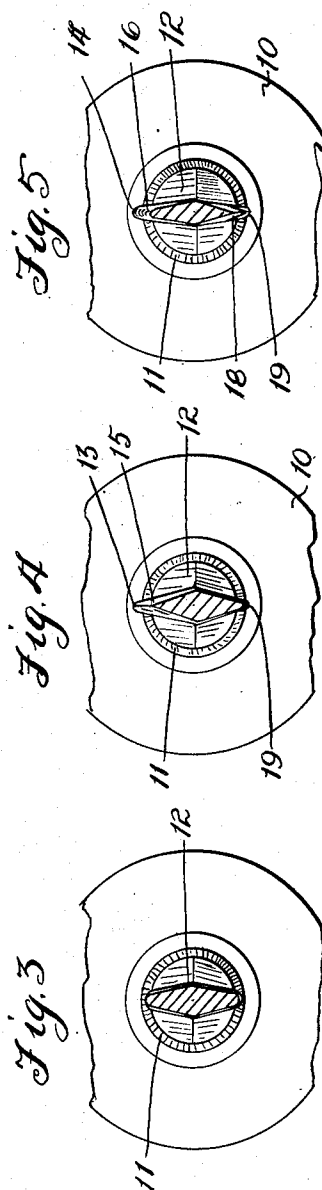
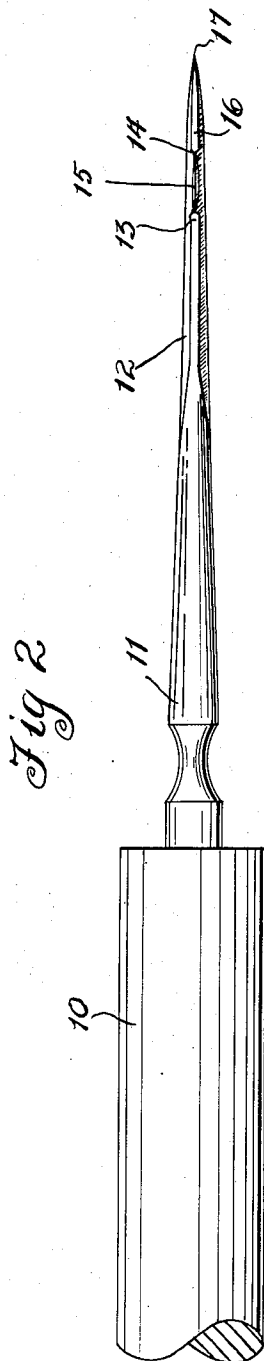
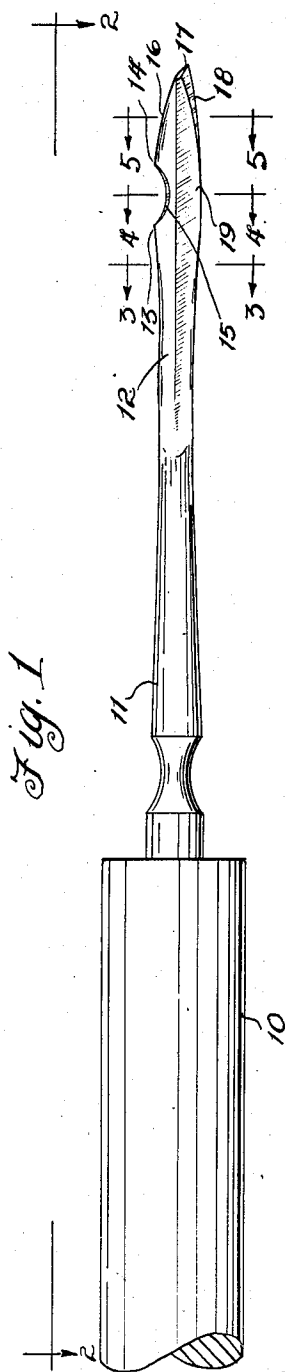


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SURGICAL INSTRUMENT
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SURGICAL INSTRUMENT

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4 Claims. (Cl. 128—314)

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The present invention relates to improvements in a surgical instrument and in particular to a surgical instrument which is adapted for use in overcoming the crippling effect in the hands due to contractions of the palmar aponeuroses. The shrinkage of these muscle attaching members cause the fingers to curl inward. It is possible to make small incisions and cut the contracted palmar aponeuroses in any number of places in order to obtain relief from the crippling effect of the contraction. However, there is not at present, a satisfactory instrument for this purpose. The ordinary cutting instruments used by surgeons, present too many opportunities for damage to the tissue adjacent to the fibrous band which is to be cut.

It is the purpose of the present invention to provide a surgical knife which is so constructed as to form an incising edge at the tip for making the small incision necessary and, to provide a section adjacent to the incising edge but on the opposite side of the knife, with a cutting saddle which may be used to sever the contracted aponeuroses.

The nature and advantages of my invention will appear more fully from the following description and the accompanying drawings wherein a preferred form of the invention is shown. It should be understood, however, that the drawings and description are illustrative only and are not intended to limit the invention except insofar as it is limited by the claims.

In the drawings:

Figure 1 is a view in side elevation of a surgical instrument embodying my invention;

Figure 2 is a view taken at right angles to Figure 1, looking in the direction of the arrows 2—2.

Figure 3 is an enlarged sectional view taken on the line 3—3 of Figure 1;

Figure 4 is an enlarged sectional view taken on the line 4—4 of Figure 1; and

Figure 5 is an enlarged sectional view taken on the line 5—5 of Figure 1.

Referring now in detail to the drawings, the surgical knife has a handle 10 of any suitable type, and has a substantially round stem portion 11 projecting from the handle. A blade portion 12 on the knife is reduced in thickness and made slightly wider toward the tip. The portion 12 is roughly diamond shape with the opposite edges rounded up to a point 13. Between the points 13 and 14, the knife is provided with a cutting saddle 15 which is formed with a sharp edge. Beyond the point 14 toward the tip of the knife the surface 16 is rounded. A sharp tip 17 and an

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incising edge 18 are provided on the knife for making the necessary small incision and for separating any adhesions between the skin and the palmar aponeuroses. The knife is provided with a rounded edge 19 directly opposite the saddle 15. Any suitable material such as rustless steel may be used in the knife.

It will be noted that except for the cutting saddle 15, the tip 17 and the adjacent edge 18, the remainder of the knife is devoid of any sharp edges. The purpose of having dull or rounded edges through the major portion of the knife is to avoid injury to important tissues in the hand.

The use of the surgical knife may be described as follows: A local anaesthesia is injected into a small area of the skin close to the aponeurosis selected to be incised. The anaesthetic agent is then deposited along the proposed course of the knife. The cutting edge of the point is used to make a small incision in the skin just large enough to admit the "saddle-knife." With the finger held in flexion, the knife is introduced into this incision and passed along the course previously anaesthetized, with the side of the blade parallel to the skin. The cutting edge previously used to incise the skin is now used to separate adhesions between the contracted aponeurosis and the skin. The knife is now rotated in its longitudinal axis, so that the "cutting-saddle" engages the prominent point of the contracted aponeurosis. This position is readily confirmed by feeling the fibrous band engaged in the saddle. The finger is now forcibly extended, putting the contracted aponeurosis on the stretch. The "saddle-knife" is next pressed firmly downward. Both the patient and the doctor may feel the separation of these fibers as they are cut. The knife is next returned to its parallel relationship with the skin and withdrawn. It is considered advisable to apply a snug compression bandage to prevent any hematoma formation, although there is very little danger in severing any important structure. This procedure may be repeated any number of times found necessary. It is not disabling and the wounds heal readily. The patient suffers little "time loss," if any. The economic saving is considerable.

The nature and advantages of my invention will be apparent from the foregoing description. Having thus described by invention, I claim:

1. A surgical knife for the purpose described, comprising a straight pointed blade having a concave sharp edged saddle portion set back from the blade point and said blade having the edges thereof extending from both ends of the sad-

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die portion rounded to smooth convex surfaces incapable of cutting the flesh.

2. A surgical knife for the purpose described comprising a handle, a straight pointed blade thereon having a portion of one edge adjacent to the point rounded to a smooth convex surface incapable of cutting the flesh, said blade having a sharp recessed cutting edge portion extending from said rounded portion toward the handle, the blade having a rounded raised edge portion extending from the recessed edge portion toward the handle, said rounded raised edge portion providing a smooth convex surface incapable of cutting the flesh.

3. A surgical knife for the purpose described, comprising a handle, a pointed blade thereon having a portion of one edge adjacent to the point rounded, the point and the opposite edge of said blade adjacent to the point being sharp for incising, said blade having a sharp recessed cutting edge portion extending from said rounded

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portion toward the handle, the blade having a rounded raised edge portion extending from the recessed edge portion toward the handle.

4. A surgical knife having a blade portion substantially diamond shape in cross section, the blade having a sharp point and a sharp incising edge extending a short distance along the blade from said point, the blade having a concave sharp edged saddle portion in the edge opposite the incising edge, the saddle portion being spaced from the blade point, and the blade being dulled from the point to the saddle portion.

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