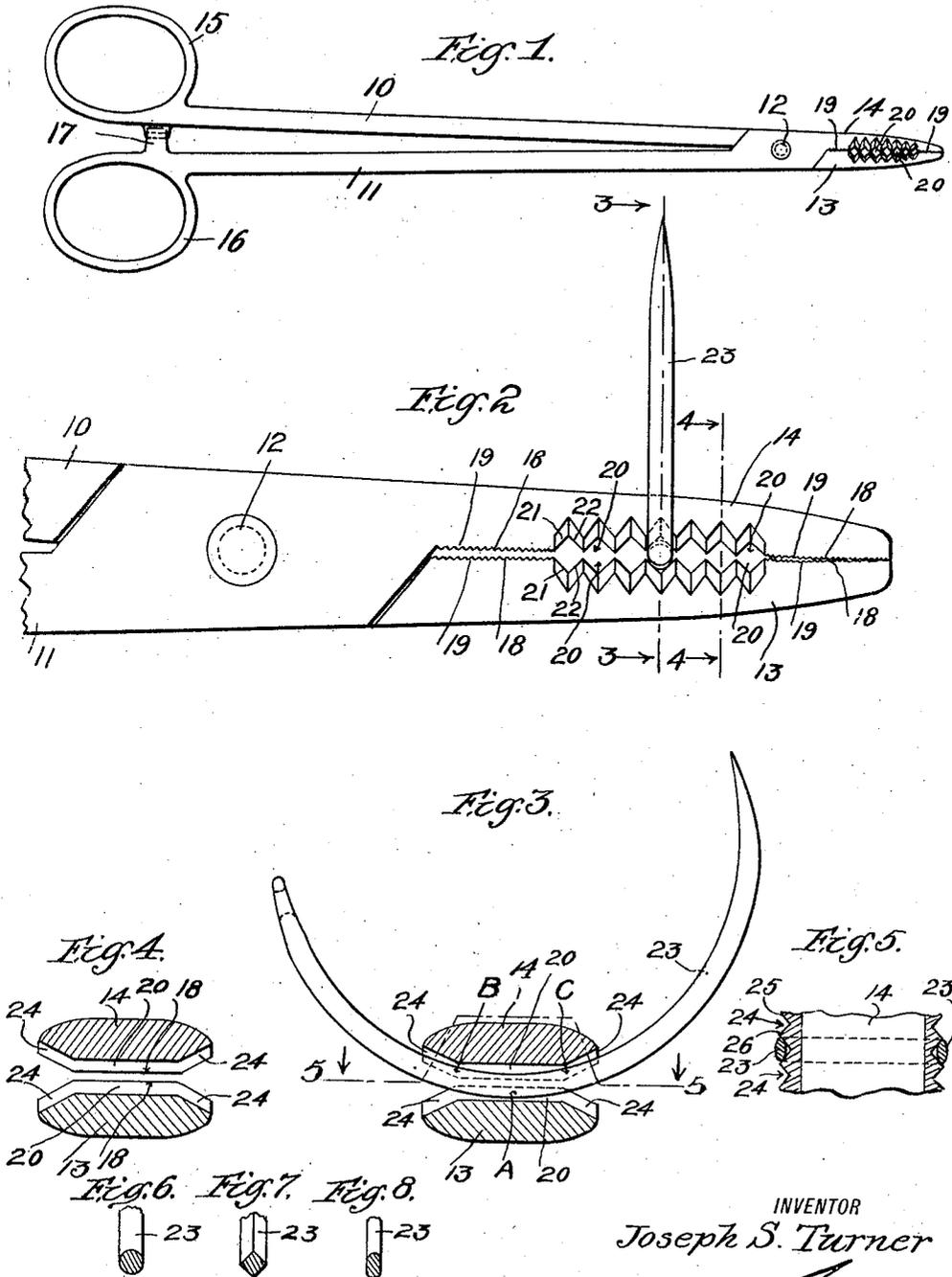


J. S. TURNER.
 SURGICAL NEEDLE HOLDER.
 APPLICATION FILED MAR. 11, 1919.

1,327,577.

Patented Jan. 6, 1920.



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JOSEPH S. TURNER, OF LOS ANGELES, CALIFORNIA.

SURGICAL-NEEDLE HOLDER.

1,327,577.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH S. TURNER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Surgical-Needle Holders, of which the following is a specification.

My invention relates to surgical forceps which are especially designed for the holding of needles during a surgical operation, and are more particularly adapted to be used when a needle of the curved type is employed.

In the stitching up of a wound after a surgical operation, the needle is held in a forceps or special holder designed for that purpose, and must be held very firmly against both lateral and twisting movements in order that it may be projected through the toughest tissue with precision, accuracy and ease. Heretofore many types of forceps or holders have been employed for this purpose, but have not proven altogether satisfactory, especially when a round needle is employed which requires a much firmer grip due to the increased force necessary to project it through the tissue, than the dangerous cutting pointed needle, which cuts its way through the tissue.

The object of my invention is to provide an instrument adapted to securely hold a curved needle when it is being passed through the flesh of a patient during a stitching operation, whereby the needle will be prevented from either slipping or twisting, or breaking therein.

A further object of my invention is to provide an instrument for securely holding a needle regardless of the cross sectional shape of the body of said needle.

A still further object of my invention is to provide an instrument which may be used for grasping other articles as well as a needle.

I accomplish the above objects by means of the device described herein and illustrated in the accompanying drawings in which:

Figure 1 is a side elevation of a forceps embodying my invention.

Fig. 2 is an enlarged side elevation of the gripping end of the forceps showing a needle of the curved type gripped between the jaws thereof.

Fig. 3 is a transverse section taken on the

line 3—3 of Fig. 2 viewed in the direction indicated by the arrows.

Fig. 4 is a transverse section taken on the line 4—4 of Fig. 2 viewed in the direction indicated by the arrows.

Fig. 5 is a fragmental sectional view taken approximately on the irregular line 5—5 of Fig. 3.

Figs. 6, 7 and 8 are transverse or cross sectional views taken through the shank portion of various types of needles.

In carrying out my invention I employ a pair of members 10 and 11 hinged together at 12 and crossing each other at this point. The end 13 of member 10 forms the lower gripping jaw of the forceps and the end 14 of the member 11 forms the upper gripping jaw of the forceps. The opposite ends of the members 10 and 11 are provided with the usual loops 15 and 16 adapted to receive the thumb and finger of the operator to open and close the jaws 13 and 14. The jaws 13 and 14 are held in clamped position by the spring catch 17 arranged between the loops 15 and 16.

The jaws 13 and 14 are each provided with a flat surface 18 which are opposed to each other and have formed thereon for part of their length at the forward ends minute serrations 19, and for part of their rearward limits with similar serrations which are adapted to grasp and hold articles of minute thickness.

Arranged between the serrations 19 are the needle holding notches 20, preferably of V shaped formation, having the inclined walls 21 and 22 adapted to impinge against opposite surfaces of the needle as clearly shown in Fig. 2 of the drawings. The notches 20 on the jaws 13 and 14 are disposed opposite each other, the curved needle 23, being disposed therebetween and having a bearing between the surfaces 21 and 22 of the lower jaw 13, at a point A, and between the surfaces 21 and 22 of the upper jaw 14 at approximate points marked B and C, as clearly shown in Fig. 3 of the drawings.

By this construction it will be seen that the needle is held firmly against longitudinal movement by three points of contact, two of said points engaging the inner peripheral surface of the curved needle and one of said points engaging the outer peripheral surface of the needle at a point midway between the other two points.

Notches 24 are formed in opposite sides of

each of the jaws 13 and 14 and form a continuation of notches 20, the walls 25 and 26 of which are adapted to act as an abutment against which the sides of the needle 23 engage. This prevents the needle from twisting in the holder, as clearly shown in Figs. 3 and 5 of the drawings.

In Figs. 6, 7 and 8, I have illustrated in cross section various forms of needle shanks, any of which forms may be gripped and held firmly by my needle holder.

By the above recited construction it will be seen that I have provided a forceps which may be adapted to various uses, such as grasping and holding various types of needles tightly against slippage and twisting, as well as affording means for handling the many other articles used in the dressing and caring for a wound.

What I claim is:

1. A surgical needle holder, comprising a

pair of pivoted gripping jaws each of which is provided with a groove in its gripping surface opposite a corresponding groove in the other jaw, each of said jaws being provided with side grooves, said side grooves being a continuation of the first mentioned grooves.

2. A surgical needle holder comprising a pair of gripping jaws, each of which is provided with a flat surface having V shaped grooves formed therein said grooves being oppositely disposed and V shaped grooves formed in the sides of said jaws registering with the first mentioned grooves, and means for moving said jaws toward and from each other.

In witness that I claim the foregoing I have hereunto subscribed my name this 21st day of February, 1919.

JOSEPH S. TURNER.