

S. L. KISTLER.  
SURGICAL CLAMP.  
APPLICATION FILED NOV. 6, 1909.

963,899.

Patented July 12, 1910.

Fig. 1.

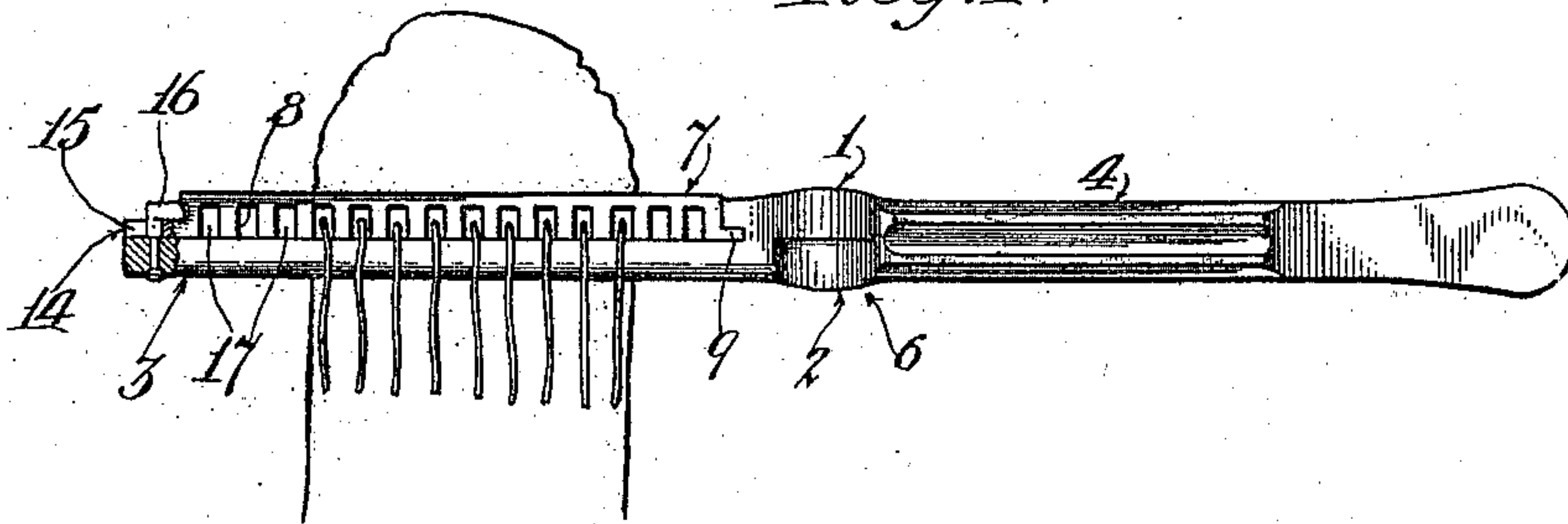


Fig. 2.

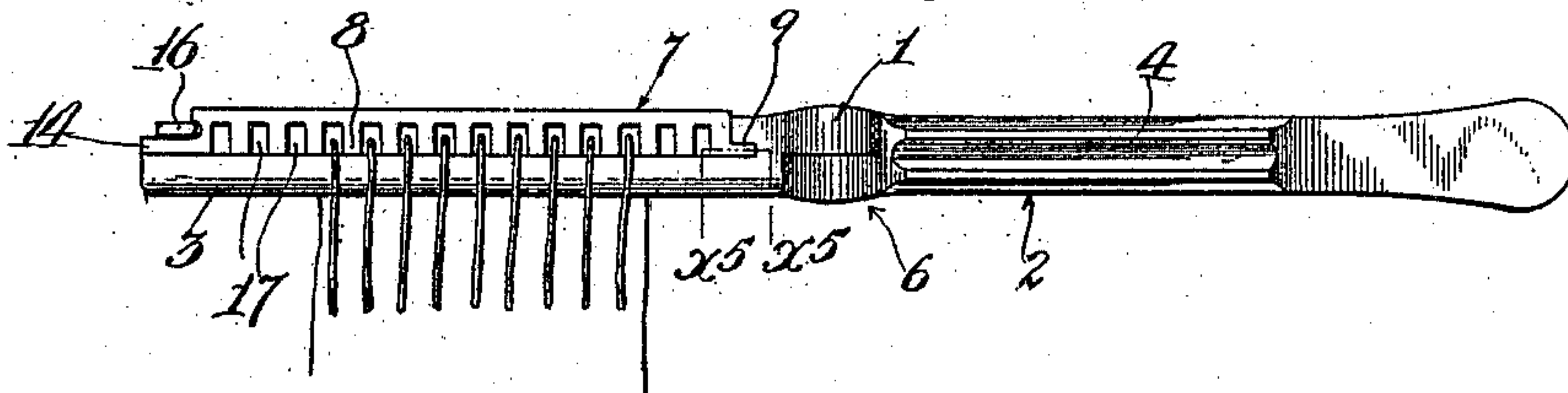


Fig. 4.

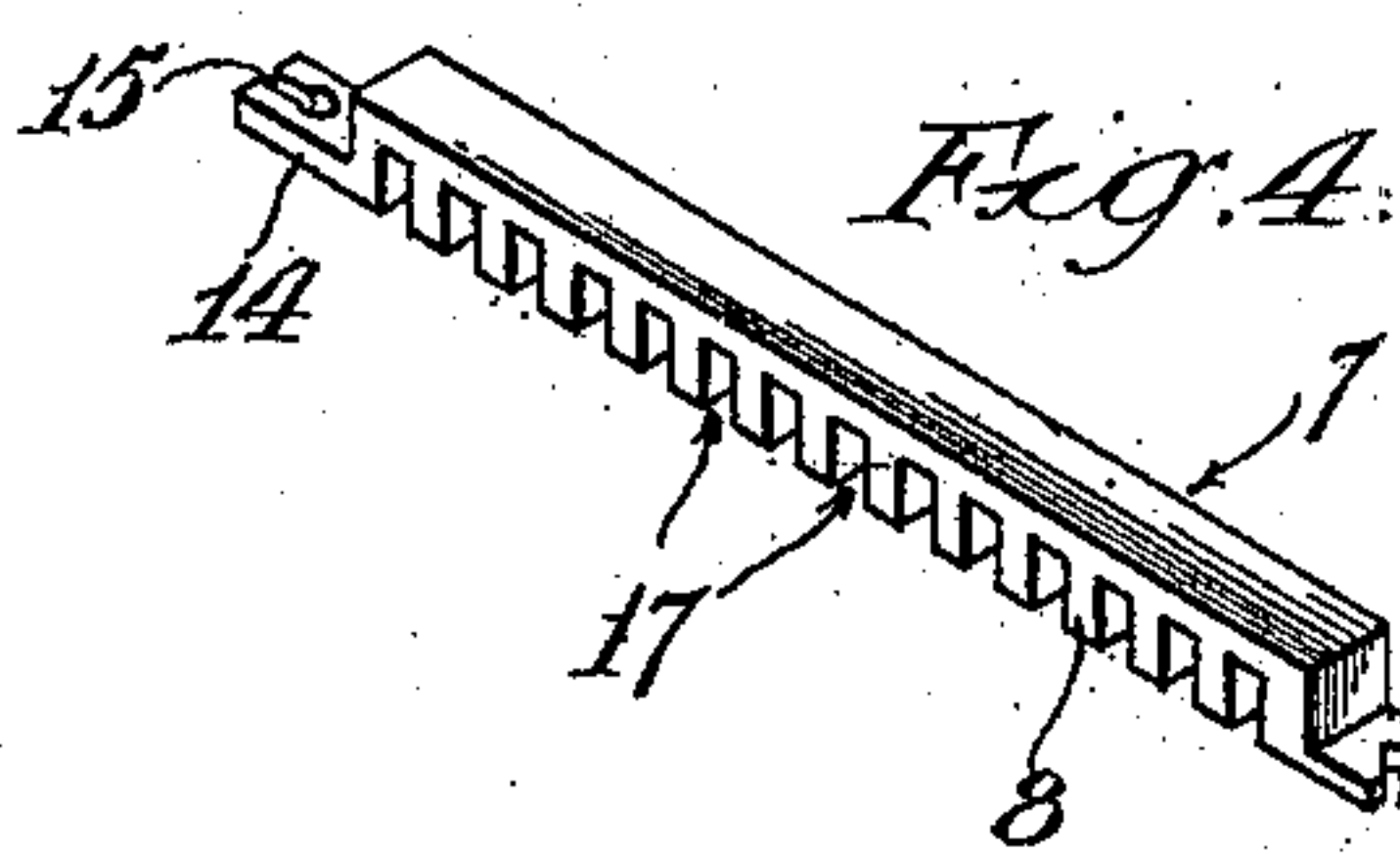


Fig. 3.

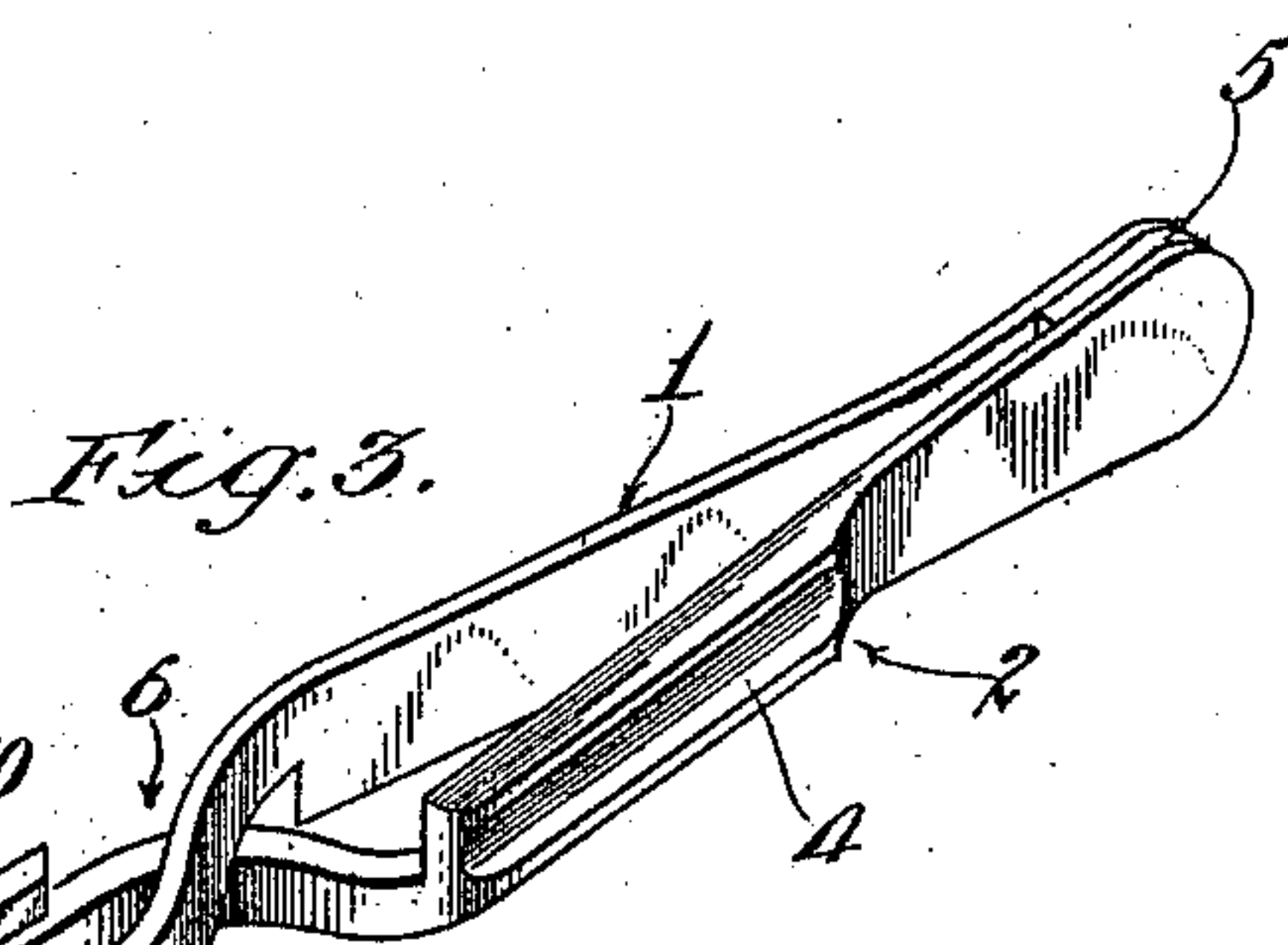


Fig. 5.

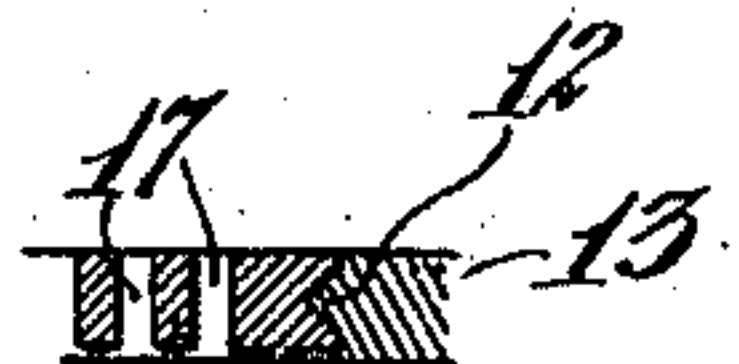
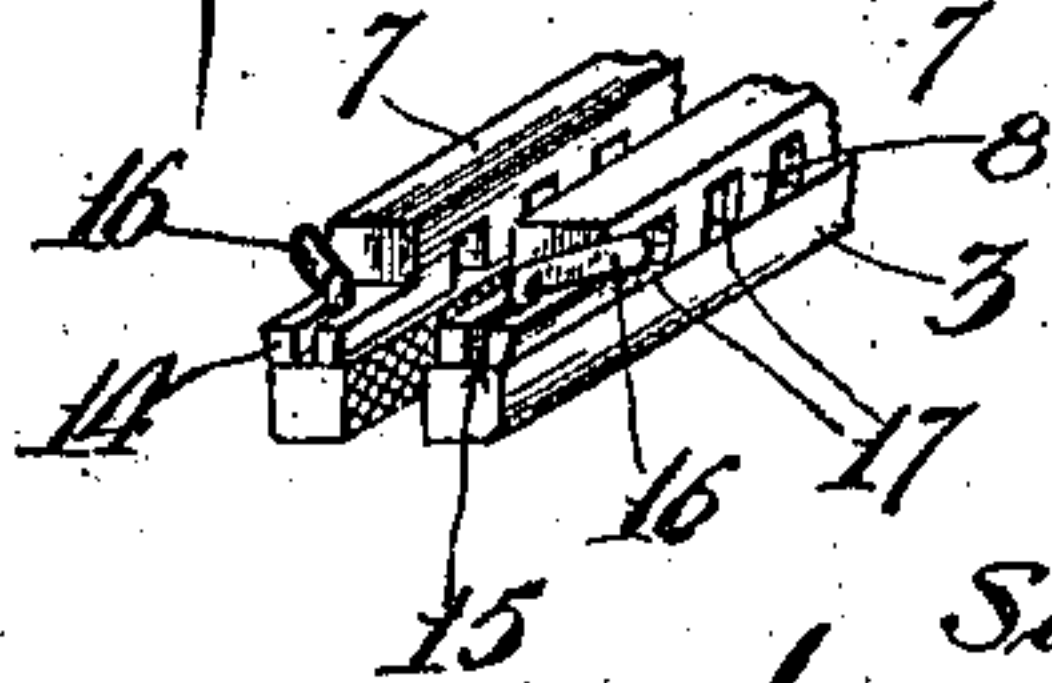


Fig. 6.



Witnesses:  
Louis W. Fratz.  
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Inventor  
Samuel I. Kistler  
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attys.



# UNITED STATES PATENT OFFICE.

SAMUEL L. KISTLER, OF LOS ANGELES, CALIFORNIA.

## SURGICAL CLAMP.

963,899.

Specification of Letters Patent.

Patented July 12, 1910.

Application filed November 6, 1909. Serial No. 526,626.

*To all whom it may concern:*

Be it known that I, SAMUEL L. KISTLER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Surgical Clamp, of which the following is a specification.

My invention relates to a surgical clamp for holding the tissues during the operation of cutting and subsequent binding thereof by ligatures, being especially adapted for circumcision.

One of the objects of the invention is to produce a clamp which has a smooth surface presented along the line of cutting.

Another object of the invention is to produce a clamp wherein the ligatures are protected during the cutting operation.

Another object is to insure the accurate positioning of the ligatures and insure a good margin between the ligatures and edges of the skin after cutting.

Another object of the invention is to produce a clamp of the character described which may be readily taken apart in order to give access to the ligatures.

Other advantages will appear as herein-after set forth in the specification.

Referring to the drawings: Figure 1 is a side elevation, partly in section, showing the device clamped over the part to be operated upon. Fig. 2 is a view similar to Fig. 1 after part of the operation has been performed. Fig. 3 is a perspective view illustrating the manner of tying the ligatures. Fig. 4 is a perspective view of a removable guard plate. Fig. 5 is a section on line  $x^5$  of Fig. 2. Fig. 6 is a perspective view of the end of the clamp.

The clamp comprises two members 1 and 2, each member consisting of a clamping bar 3 and a handle 4. The handle portions 4 are made of spring material and are welded to a block 5 at their rear ends. The members 1 and 2 are crossed at 6 so that the spring of the handle portions 4 keeps the clamping bars 3 in contact with each other. Guard plates 7 are provided for each clamp bar 3 having a serrated under face 8 which rests upon the top of the adjacent clamp bar to which the guard plate is secured by means of an extension 9 which fits under a lug 10 on the clamp bar 3. The extension 9 has a V-shaped notch 11 which engages a similarly shaped projection 12 on the rear wall of the recess 13 formed under the lug 10

preventing lateral movement of the guard plate 7. The forward end of the guard plate 7 terminates in a slotted toe 14, the slot 15 thereof permitting the guard 7 to be placed upon the clamping bar 3 after which a locking pin 16 is turned into engagement with the upper face of the toe 14 thereby locking the guard plate to the clamp bar 3.

The device is used in the following manner: The handle is pressed together, opening the clamping bars a sufficient distance to permit the clamp to be placed over the subject of the operation, the handle is then released, the clamping bars firmly holding the parts therebetween, the ligatures are then passed through the serrations 17 in the guard 7 and through the skin therebetween, as shown in Fig. 1. The part to be removed is then cut away by passing a sharp instrument along the smooth upper face of the guards 7 making a clean cut even with the upper face of the guards, as shown in Fig. 2. The guards are then removed as shown in Fig. 3, leaving a good margin of skin above the ligatures which prevents the ligatures tearing out. The ligatures are pulled up, as shown at 18, forming a loop which is cut at 19, after which the ends 20 are tied together securely binding the several layers of tissue together, completing the operation, after which the clamp may be removed by pressing the handle portions together.

What I claim is:

1. A clamp comprising two clamping members, and a guard plate on each member, said guard plate having a serrated face resting on the clamping member thereby forming a series of complete holes therebetween.

2. A clamp comprising two clamping members, and a guard plate on each member having a smooth upper face and a serrated under face resting on the clamping member.

3. A clamp comprising two clamping members crossed upon each other at an intermediate point, each member having a recess therein, a removable guard plate on each clamping member having a smooth upper face and a serrated under face resting upon said clamping member forming openings therebetween, an extension on said guard plate engaging said recess on the clamping member, and a locking pin on each clamping member for engaging the guard plate thereon.

4. A clamp comprising two clamping members, each member having a series of

complete holes and being separable along  
the line of the series of holes forming a  
removable part, whereby ligatures which  
have been passed through the holes during  
5 the stitching operation may be liberated  
from the clamping member and tied upon  
the removal of said removable part.

In testimony whereof, I have hereunto set  
my hand at Los Angeles, California, this  
29th day of October 1909.

SAMUEL L. KISTLER.

In presence of—

P. H. SHELTON,

FRANK L. A. GRAHAM.