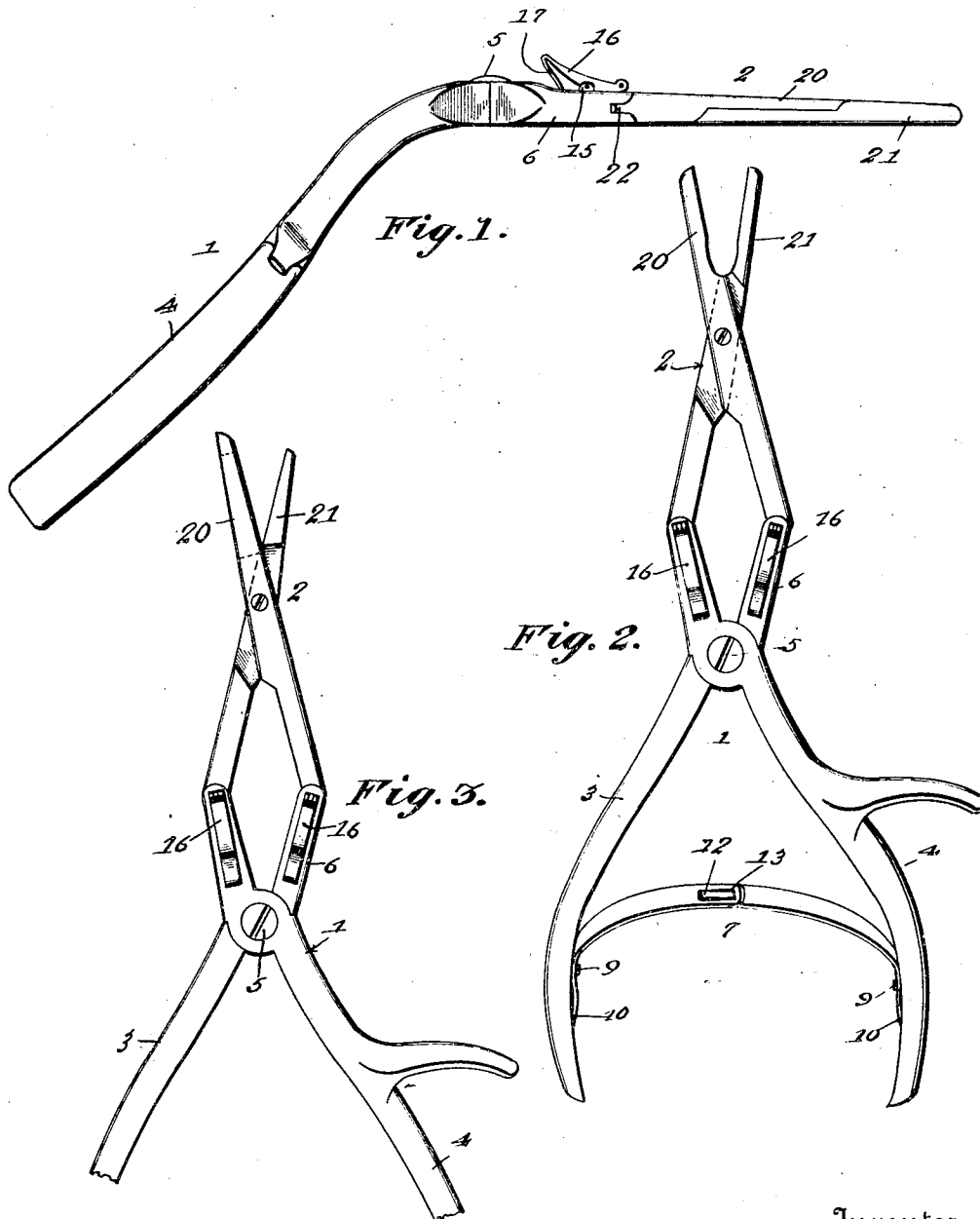


F. AND A. LO GIUDICE.
SURGICAL INSTRUMENT.
APPLICATION FILED NOV. 28, 1919.

1,359,164.

Patented Nov. 16, 1920.
2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

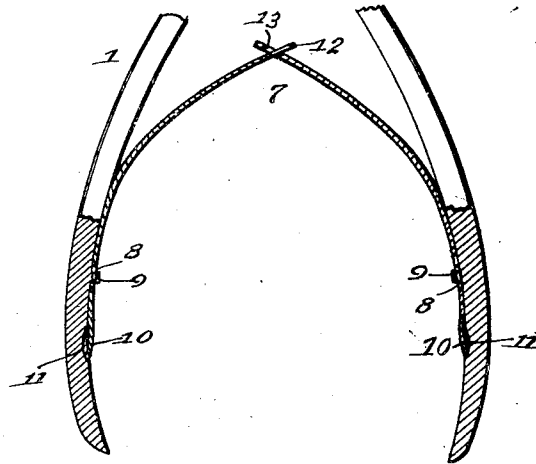


Fig. 4.

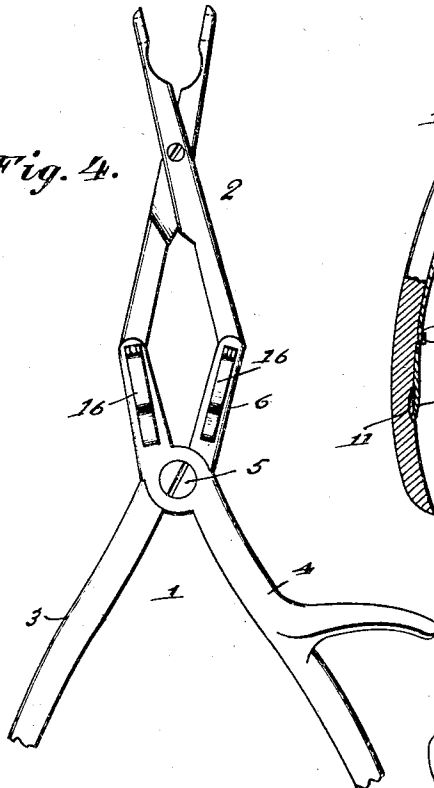


Fig. 7.

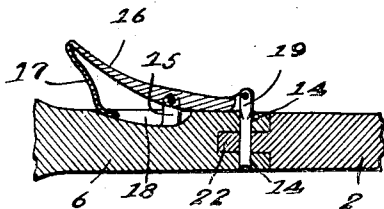
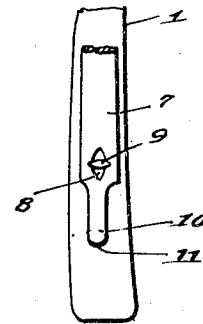


Fig. 5.

Fig. 8.



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UNITED STATES PATENT OFFICE.

FILIPPO LO GIUDICE AND ARTHUR LO GIUDICE, OF BROOKLYN, NEW YORK.

SURGICAL INSTRUMENT.

1,359,164.

Specification of Letters Patent.

Patented Nov. 16, 1920.

Application filed November 28, 1919. Serial No. 340,965.

To all whom it may concern:

Be it known that we, FILIPPO LO GIUDICE and ARTHUR LO GIUDICE, subjects of the King of Italy, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Surgical Instruments, of which the following is a specification.

This invention relates to improvements in surgical instruments and the principal object of the invention is to provide means for detachably connecting any one of a number of instruments to a handle member so that the surgeon need only carry the one handle member with a number of different kinds of instruments, thus economizing space and weight.

Another object of the invention is to make the means for detachably connecting the instrument to the handle member permit the parts to have pivotal movement.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing our invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an edge view of our invention with one kind of forceps thereon.

Fig. 2 is a plan view.

Fig. 3 is a plan view showing another kind of forceps attached thereon.

Fig. 4 is a plan view showing still another kind of forceps attached.

Fig. 5 is a sectional view.

Figs. 6 and 7 are detail views of the spring means for the handle member.

Fig. 8 is an edge view of the Bruening forceps, shown in Fig. 4.

As shown in these views the instrument consists of the handle member 1 and the forceps 2. The handle member comprises the two parts 3 and 4 which are pivotally connected together by the screw 5. These members are normally held with the jaws 6 separated by means of the springs 7. These springs are detachably connected with the inner faces of the members 3 and 4 by means of the oblong holes 8 in the springs engaging the oval-shape pin 9 in the mem-

bers. The reduced ends 10 of the springs fit in recess 11 in the members 3 and 4. One spring has its inner end reduced as at 12 and this reduced end fits in an opening 13 in the other spring. By this arrangement of parts the springs may be easily removed by swinging their inner ends outwardly so as to move the large part of the openings in alinement with the pin so as to permit the said opening to pass over the pin.

The jaws 6 are provided with forked ends and holes 14 pass through these forks. Ears 15 are formed on each jaw and a lever 16 is pivoted to said ears. The rear end of said lever is bent downwardly and forwardly to form a spring 17 which extends into a notch 18 formed in the top of the jaw. The front ends of the levers have pins 19 pivoted thereto and these pins engage the holes 14.

The forceps or instrument part 2 is formed of two members 20 and 21 which are pivoted together intermediate their ends and their rear ends are reduced to provide the flat portions 22 which are perforated and are adapted to fit between the forks of the jaws with the perforations registering with the holes in said forks so as to receive the pin. The outer ends of these instruments are made with cutting portions or squeezing portions as desired.

The Bruening forceps is shown in Figs. 4 and 8. As will be seen one member of this forceps passes through an elongated slot in the other member, one end of which ends in an oval hole by which the two members may be placed together. The drawing illustrates 3 different types of forceps, though it will be understood that any other kind of an instrument may be made to operate my handle.

For pressing the levers downwardly to raise the pins, said pins will be freed from the perforations in the forceps so that one pair of forceps may be removed and another pair substituted. In this way the surgeon may carry in his case the single pair of handle members with a large number of instruments. Thus his instrument will occupy but little space and the weight will be greatly reduced.

It is thought from the foregoing description that the advantages and novel features of our invention will be readily apparent.

We desire it to be understood that we may make changes in the construction and in the

combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What we claim is:—

- 5 1. A surgical instrument comprising a handle part comprising a pair of members pivotally connected together intermediate their ends, the handle parts of said members being curved outwardly away from
10 each other and downwardly so that their jaw parts extend at an angle from said handle parts, a spring located between the handle parts for holding the jaw parts spaced apart, a plurality of interchangeable
15 instruments, movable pivot pins for detachably connecting any desired instrument to the jaw parts of said handle members and a spring controlled lever on each jaw part to which the pivot pins are connected.
20 2. A surgical instrument comprising a handle part comprising a pair of jaw members pivotally connected together, a plurality of interchangeable instruments and means for detachably connecting any desired in-
25 strument to the handle member, said means

consisting of pivot pins for connecting the instrument to the jaw members and actuating levers pivoted to the jaw members and to the pins for moving the pivot pins out of engagement with the instrument when
30 the actuating levers are depressed.

3. A device of the class described comprising a handle member consisting of a pair of jaws pivotally connected together, a spring for normally holding the jaws
35 apart, said jaws having their outer ends forked and holes passing through the forks, a lever pivoted on each jaw member, a pin pivoted to each lever and passing through said holes and a plurality of interchangeable
40 forceps each consisting of two parts pivotally connected together and having flat portions at the ends fitting between the forks and perforations in said flat portions for receiving the pin.

In testimony whereof we affix our signatures. 45

FILIPPO LO GIUDICE.
ARTHUR LO GIUDICE.