

No. 668,911.

Patented Feb. 26, 1901.

G. ERMOLD.
SURGICAL INSTRUMENT.

(Application filed Jan. 5, 1901.)

(No Model.)

Fig. 1.

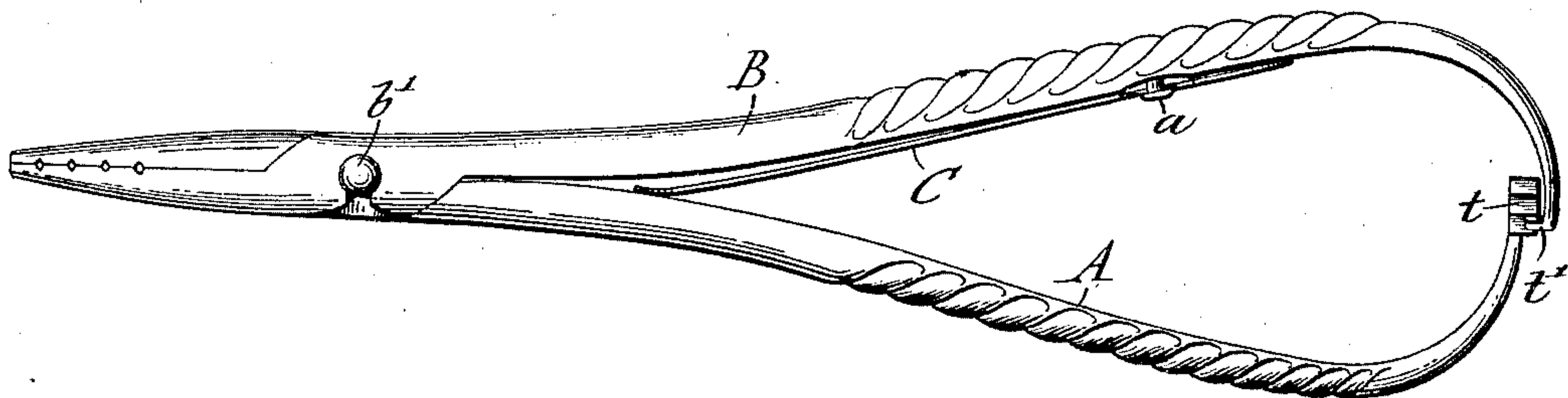


Fig. 2.

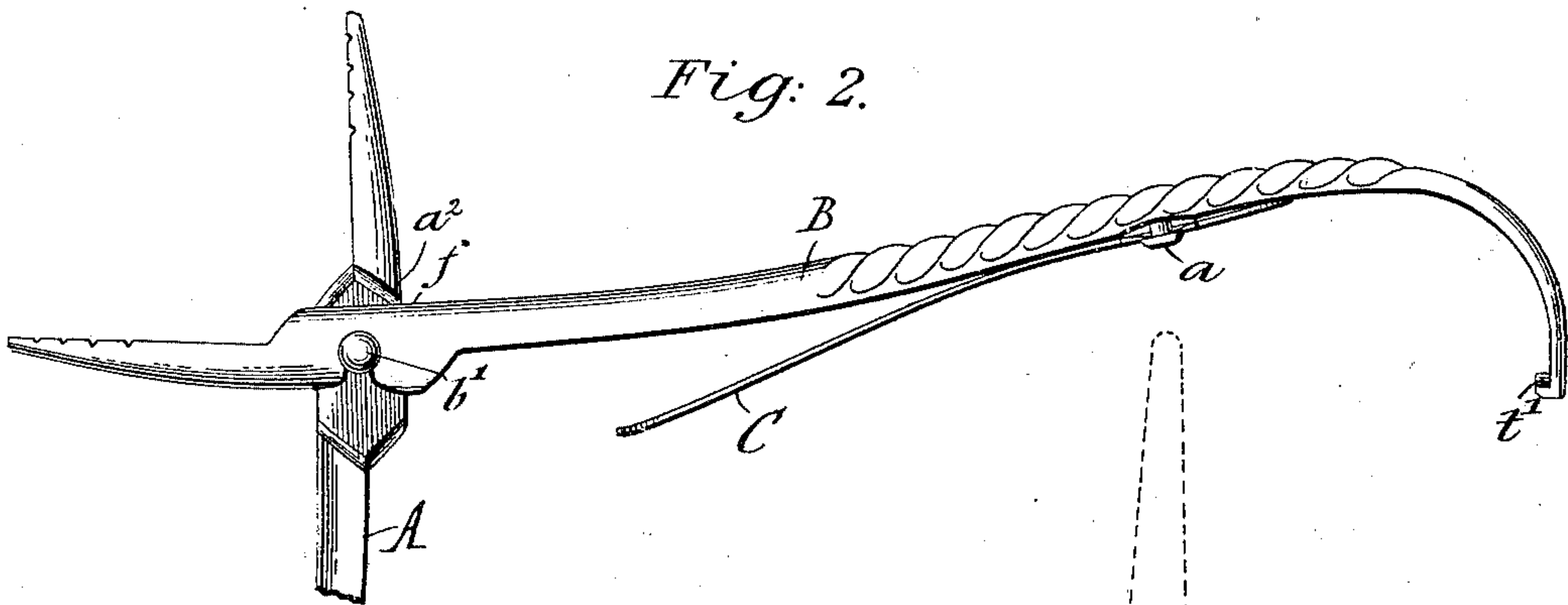


Fig. 3.

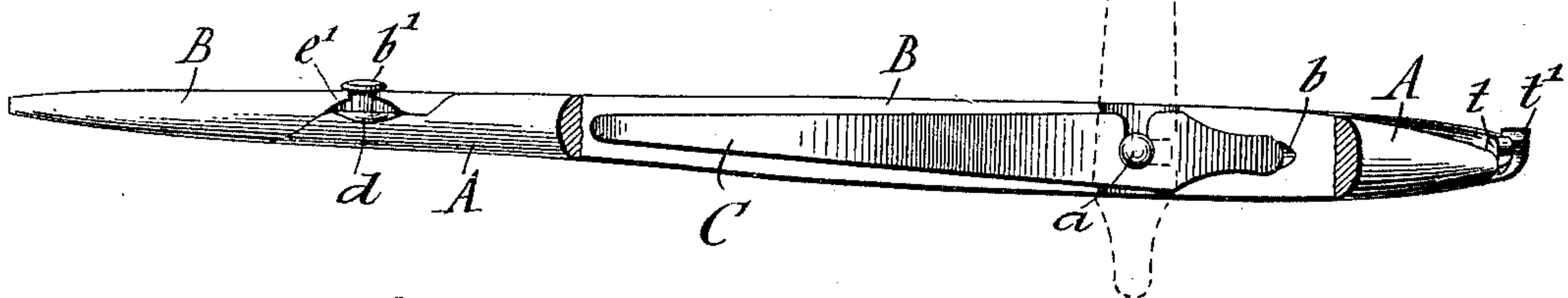


Fig. 4.

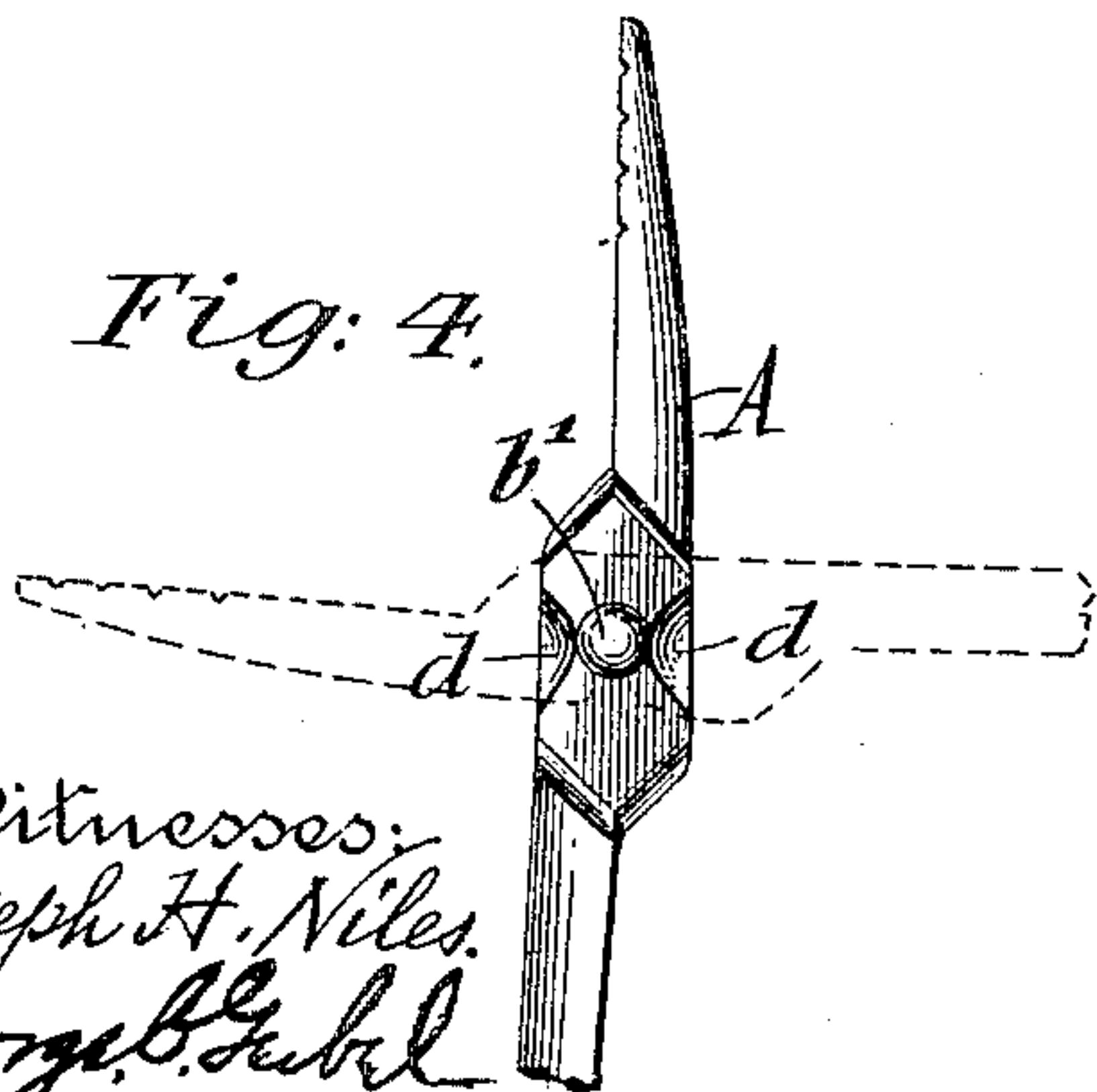
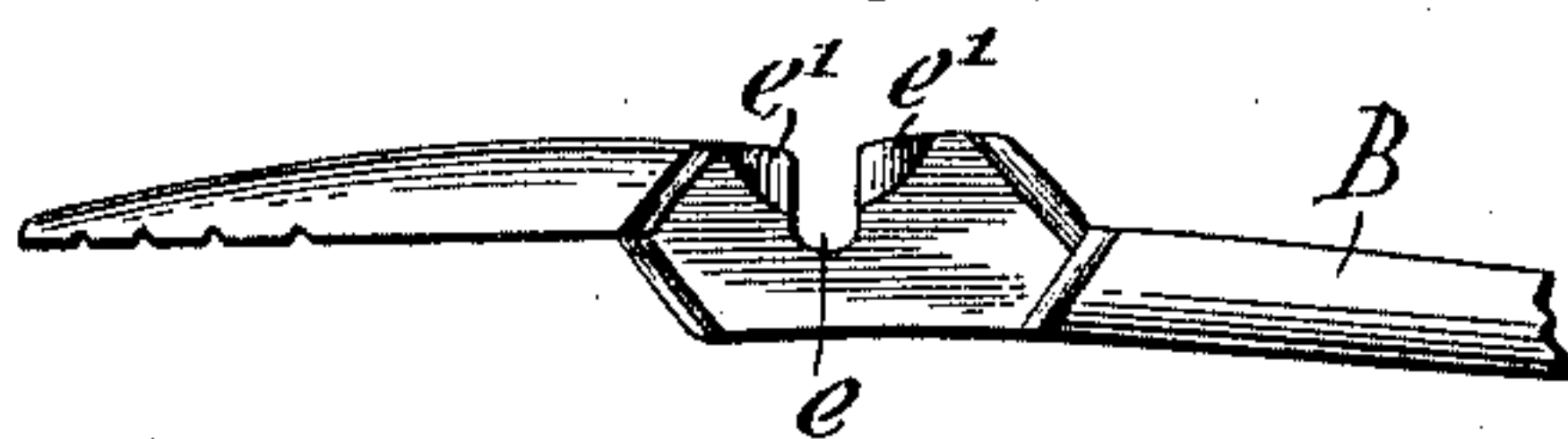


Fig. 5.



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UNITED STATES PATENT OFFICE.

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SURGICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 668,911, dated February 26, 1901.

Application filed January 5, 1901. Serial No. 42,201. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ERMOLD, a citizen of the United States, residing in Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Surgical Instruments, of which the following is a specification.

This invention relates to an improved pivot-joint for surgical instruments—such as scissors, tongs, and the like—whereby the convenient detaching and connecting of the parts for the antiseptic cleansing of the same is permitted; and the invention consists of a surgical instrument composed of two members, one member being provided with a flattened joint portion having a headed pin and inclined or concaved depressions in said portion at each side of said pin and a second member provided with a flattened joint portion having an inwardly-extending recess adapted to receive said pin and beveled portions adjacent to said recess and located to be in juxtaposition to the inclined recesses of the first member when the two members are placed together at an angle to each other.

In the accompanying drawings, Figure 1 is a top view of my improved surgical instrument, showing it in closed position. Fig. 2 is a like view showing the instrument in open position. Fig. 3 is a side elevation, a portion of one member being broken away; and Figs. 4 and 5 are detail views of the joint-forming portions of the two members.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A and B are the two members of my improved surgical instrument. The handles of the two members A and B are preferably curved inwardly at their outer ends, one end being toothed at *t* and the other slightly-longer end being provided with a single tooth *t'*, that takes into the teeth of the opposite member, as shown in Fig. 1. A flat detachable spring C is applied by its recessed shank upon a headed pin *a* of the handle of one of the members, as B, as shown in Figs. 1, 2, and 3, said spring being placed in position at right angles to the member B and being then readily detachable therefrom. The rear end of the spring is seated in a recess *b* of the member B, while the opposite end of the

spring bears against the member A. The portions of the members A and B that form the joint of the instrument are shown in detail in Figs. 4 and 5. Each member is provided with a depressed or flattened portion. From the flattened portion of the member A rises a headed pin *b'*. Symmetrical recesses or concavities *d* are located at opposite sides of said pin, as shown in Fig. 4. The member B is likewise flattened at the joint portion of the same, said flattened portion being provided with a recess *e*, that extends partly into the flattened portion, and which is of such size as to receive the pin *b'*. The parts adjacent to said recess *e* are slightly beveled or inclined, as shown at *e'*.

When the members of the instrument are to be taken apart, so as to be cleaned, they are first opened entirely, so as to be at right angles to each other, as shown in Fig. 2. When in this position, the member B can be readily moved out from under the head of the pin *b'*, for the reason that the inclined or concaved recesses *d* and the beveled portions *e'*, which when the members are at right angles or in juxtaposition, permit a slight axial turning of the member B, so that its edge at *f*, Fig. 2, rises above the member A at *a'*. When the parts A and B are thus separated, the spring is removed from the member B by swinging it at right angles to the same. Each part of the instrument can then be cleaned independently of the other parts. After cleansing, the spring C is first connected with the handle of the member B by placing the same at right angles thereto and then bringing it over in longitudinal position, as shown in Fig. 3. The member B is then placed at right angles to the member A, as shown in Fig. 4, so that the inwardly-extending recess *e* is in line with the shank of the pin *b'*. The flattened portion of the member B can now be readily slipped under the headed pin, so that the two members are connected.

My improved surgical instrument has the advantage that all the parts of the same can be separated from each other and connected again with great facility, so that after use the parts can be individually cleaned before being again used. By reason of the concavities *d* and *e'* the flattened portions at the joint of

the two members require each only a slight depression, so that neither of the members is weakened at the flattened joint portion. A strong and very convenient joint is thereby
5 obtained, which is especially adapted for surgical instruments.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

10 In a surgical instrument, the combination of one member, provided with a flattened joint portion having a headed pin, and inclined or concaved depressions in said portion at each side of said pin, and a second member pro-

vided with a flattened joint portion having an inwardly-extending recess and beveled portions adjacent thereto and so located as to be in juxtaposition to the inclined recesses of the first member when said members are placed together at an angle, substantially as
15 set forth. 20

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

GEORGE ERMOLD.

Witnesses:

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