

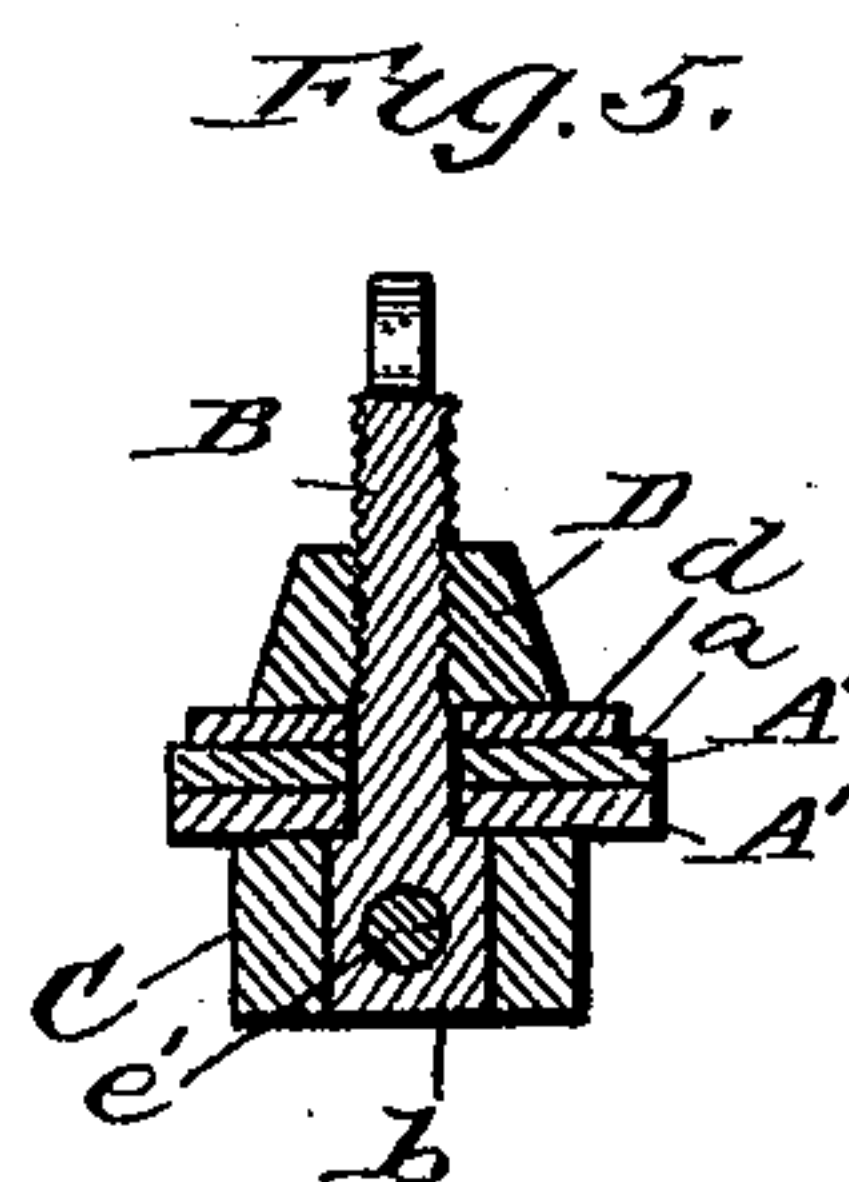
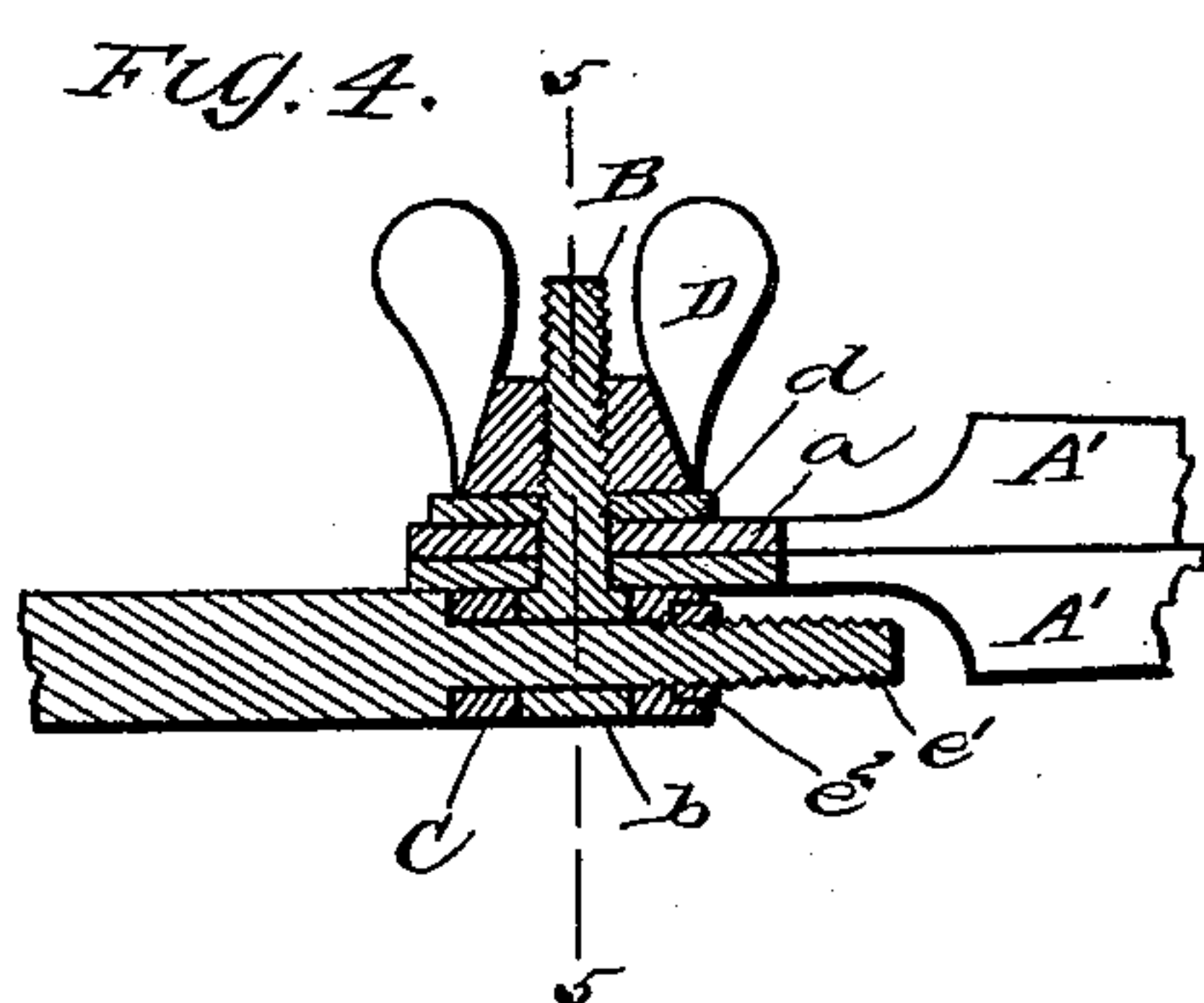
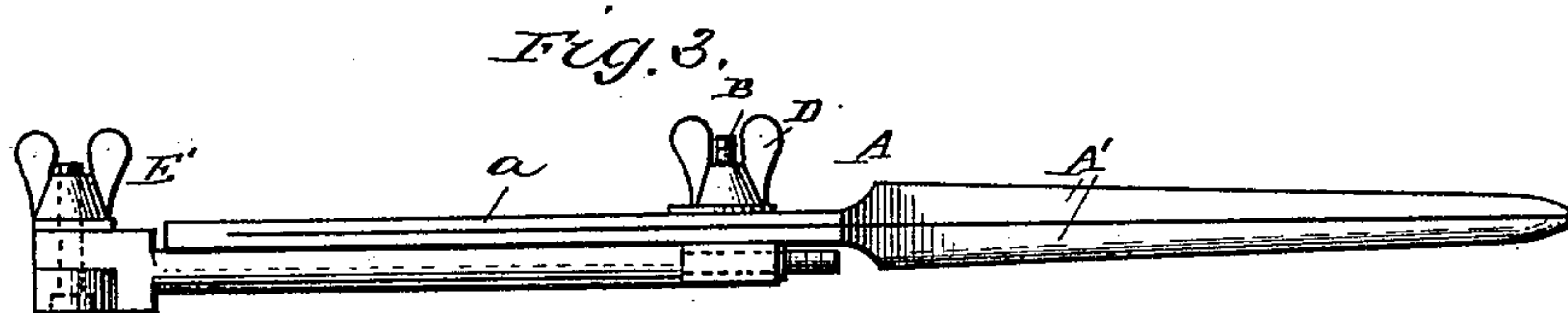
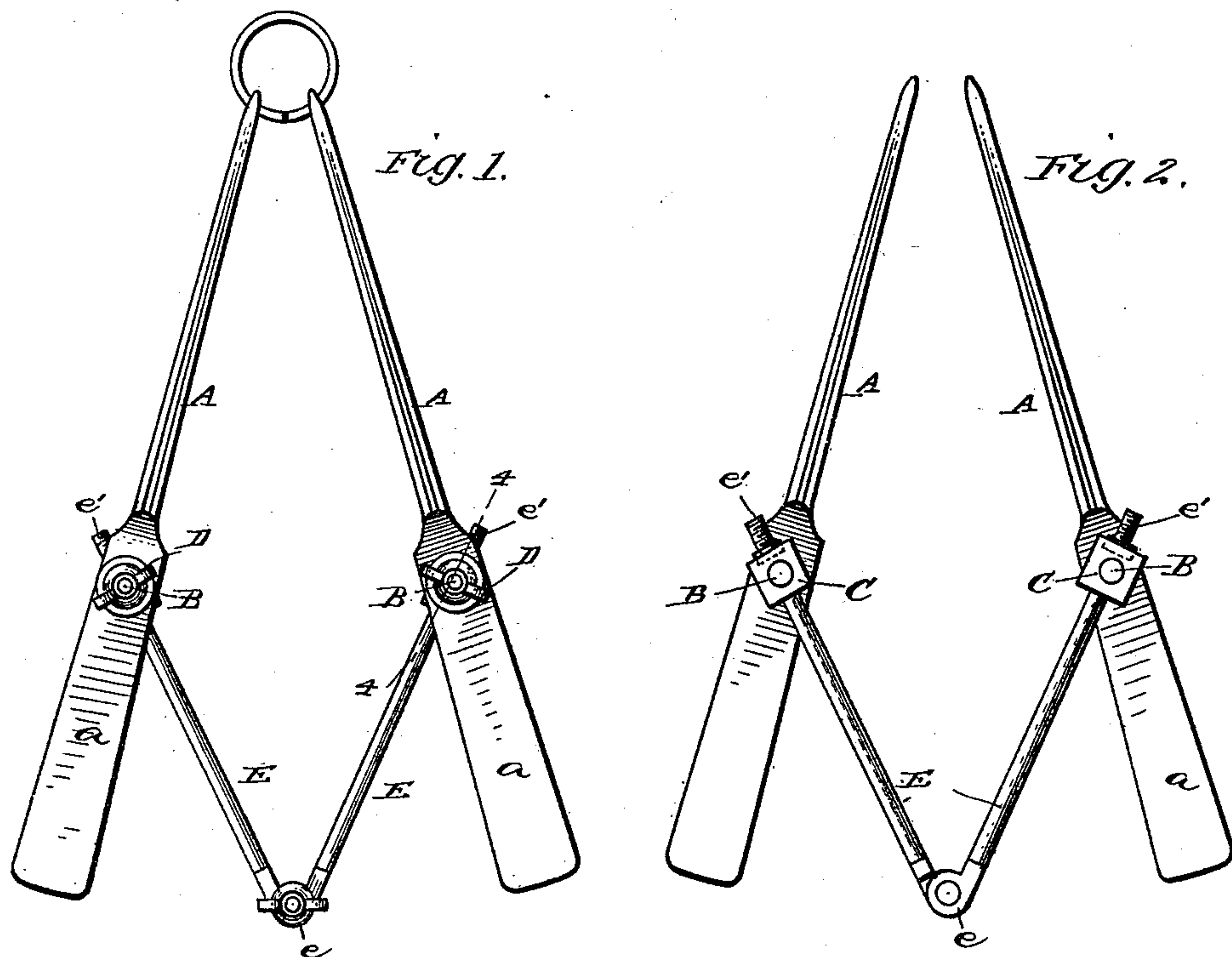
(No Model.)

2 Sheets—Sheet 1.

D. MENDELSON.
JEWELER'S FORCEPS.

No. 459,641.

Patented Sept. 15, 1891.



WITNESSES:
W. R. Davis.
C. Sedgwick

INVENTOR:
D. Mendelson
BY Munn & Co
ATTORNEYS

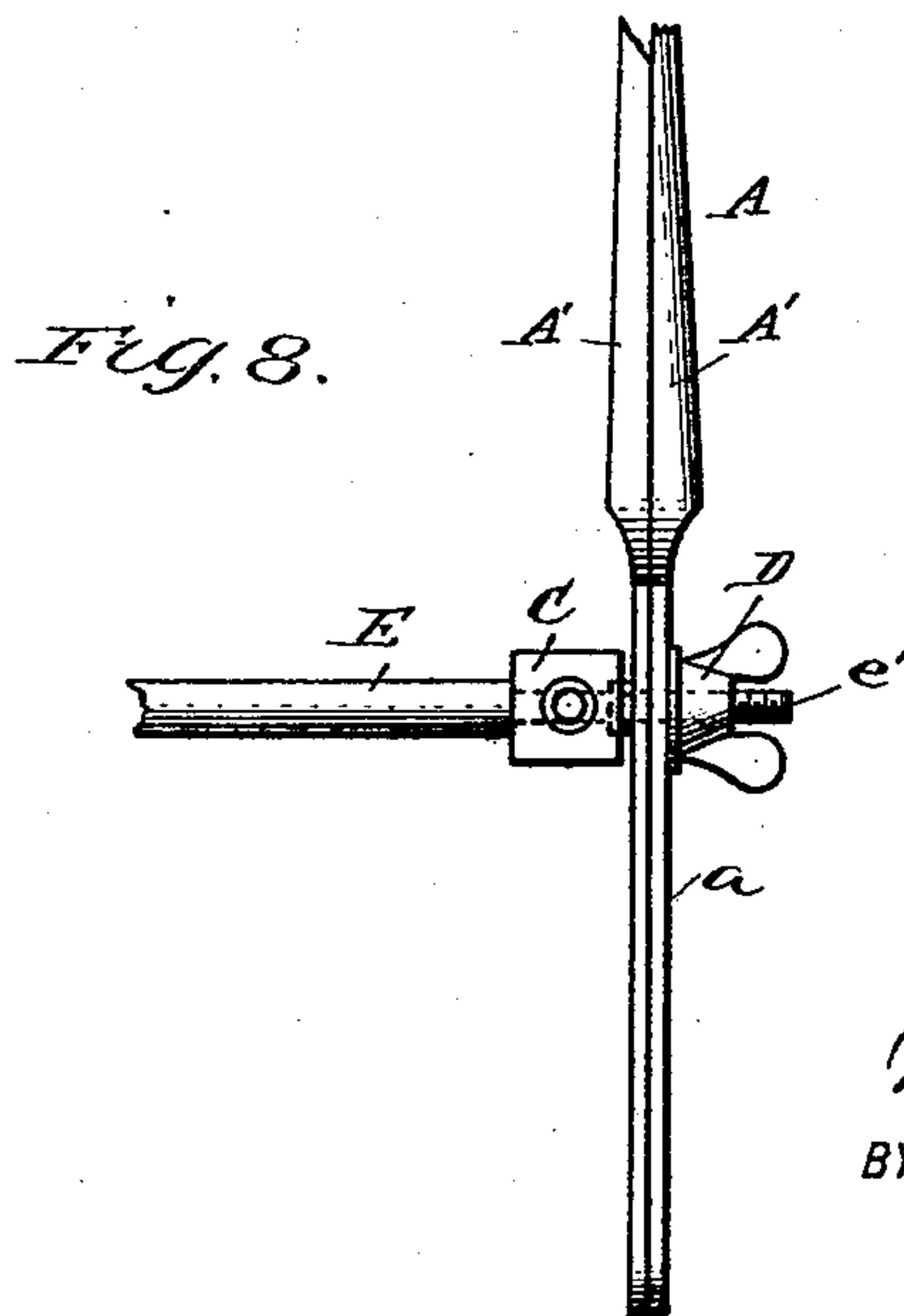
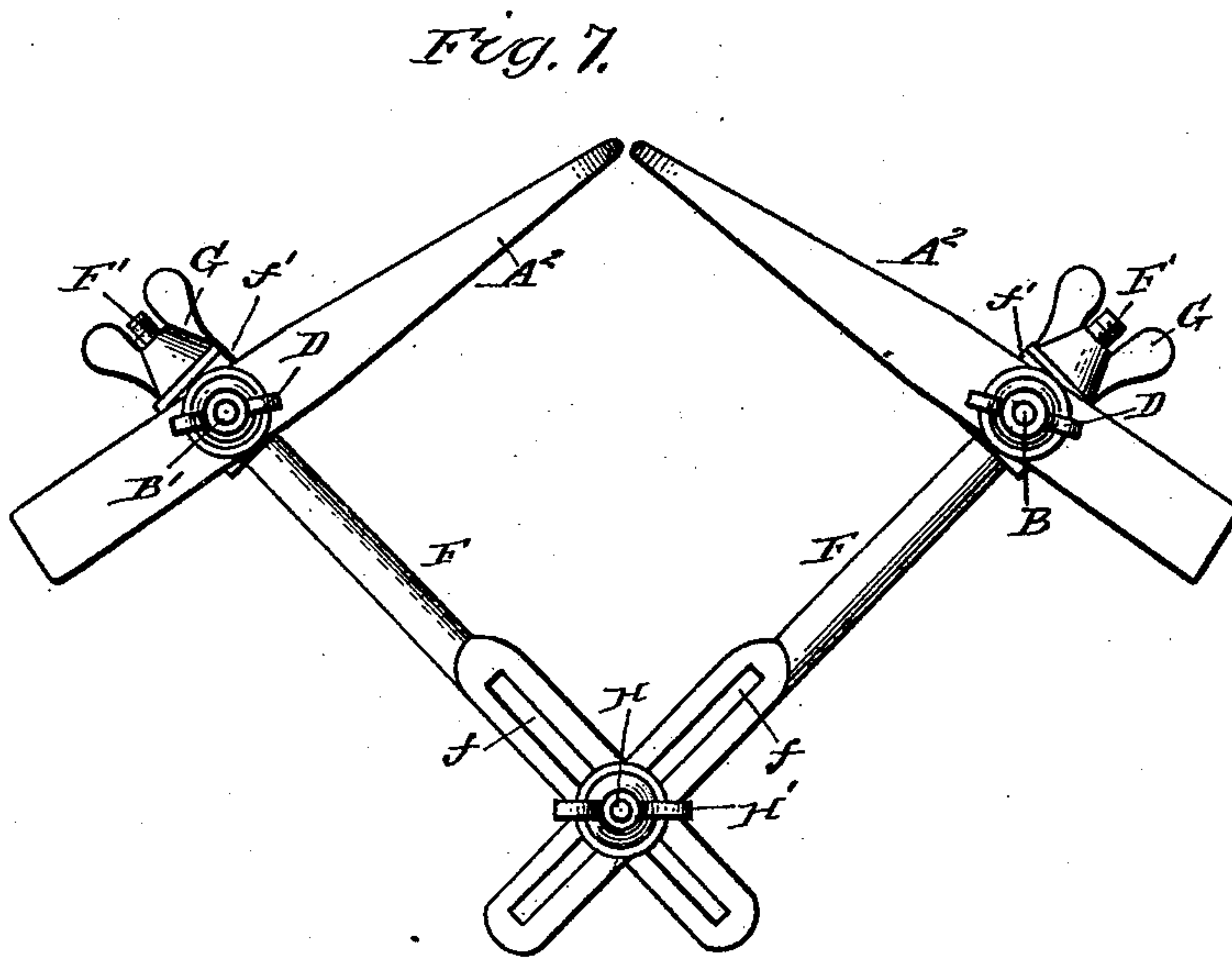
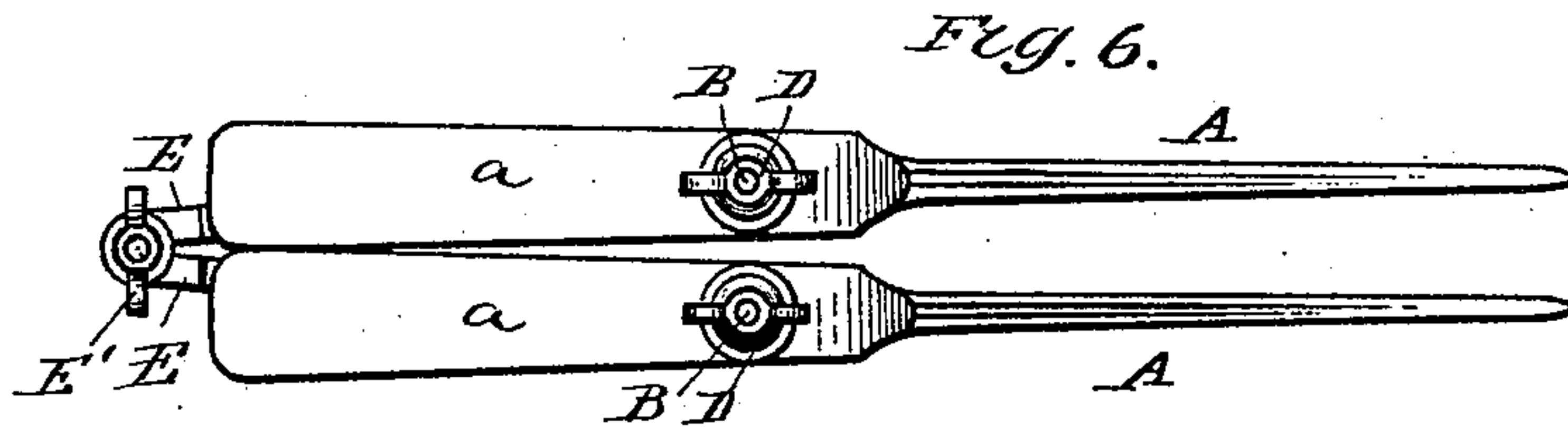
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UNITED STATES PATENT OFFICE.

DAVID MENDELSON, OF EUREKA, UTAH TERRITORY.

JEWELER'S FORCEPS.

SPECIFICATION forming part of Letters Patent No. 459,641, dated September 15, 1891.

Application filed February 26, 1891. Serial No. 382,914. (No model.)

To all whom it may concern:

Be it known that I, DAVID MENDELSON, of Eureka, in the county of Juab and Territory of Utah, have invented new and useful Improvements in Jewelers' Forceps, of which the following is a full, clear, and exact description.

My invention relates to improvements in jewelers' forceps; and the object of my invention is to produce a simple and efficient forceps for holding two parts of articles which are to be soldered or otherwise operated upon together and which it is necessary to heat.

A further object of my invention is to produce a forceps by means of which the article to be operated upon may be held at any desired angle, and while the invention is chiefly intended for jewelers' use it is also adapted for the use of plumbers, gunsmiths, dentists, and others who heat and operate upon various small articles.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the forceps embodying my invention, showing the same applied to a ring. Fig. 2 is an inverted plan of the forceps. Fig. 3 is a side elevation with the tweezers closed together. Fig. 4 is a cross-section on the line 4 4 in Fig. 1, showing the manner in which the tweezers are pivoted. Fig. 5 is a vertical section on the line 5 5 in Fig. 4. Fig. 6 is a plan view of the tweezers with the tweezers arranged in a parallel position. Fig. 7 is a plan view of a modified form of the forceps, and Fig. 8 is a broken detail view showing the manner in which the tweezers are sometimes held on the connecting-arms.

The forceps are provided with a pair of similar tweezers A, the tweezers being composed of the two members A', which close closely together, but which normally spring apart, owing to the spring of the metal of which they are made, and the tweezers near their rear ends are flattened, as shown at *a*, so that they may be conveniently pivoted and operated as

described. The flat portions of the tweezers are pivoted on the screw-bolts B and rest upon a flat hub C, which is apertured to receive the enlarged end or head *b* of the screw-bolt, and on the end opposite the hub the screw-bolt is provided with a thumb-nut D, between which and the flattened portions of the forceps is a washer *d*, and it will thus be seen that by tightening the thumb-nut the members of the tweezers may be pressed and held firmly together, or may be held upon some article which is inserted between them. The tweezers are connected by means of the arms E, which arms are hinged together at their inner ends, as shown at *e*, and the outer ends of the arms are screw-threaded, as shown at *e'*, and are passed through the hubs C and the enlarged ends *b* of the screw-bolts B, which are thus pivoted on the arms, which are made to extend through the hubs, so as to receive a nut *e''* to hold them in place and also to provide for placing the tweezers upon them, in a manner hereinafter described. At the point *e* at which the arms are hinged together the pintle of the hinge is screw-threaded and is provided with a thumb-nut E', as best shown in Fig. 3, so that by tightening the thumb-nut the arms may be held in a fixed position in relation to each other.

From the foregoing description it will be seen that by loosening the thumb-nut D and the thumb-nut E' the tweezers may be clamped upon some article to be held, and that as the tweezers may be made to swing in the plane of the arms E or may be turned around on the arms they may be brought into any desired position and held at any desired angle, so that they will be very convenient to use. If desired, one or both of the tweezers may be removed from the screw-bolt B and may be placed upon the reduced end *e'* of the arms E, and held there by the thumb-nut D, which nut fits the threaded ends of the arms as well as the screw-bolt B, as the screw-bolt and threaded ends of the arms are of the same size.

For certain kinds of work it will be found convenient to hold the tweezers upon the arms in the manner described, and it will be seen that they may be readily changed from the arms to the screw-bolts, or vice versa, by simply removing the nut.

In Fig. 7 I have shown a modified form of the forceps, which is better adapted for the use of gunsmiths, dentists, &c., and which form is preferably made heavier than the form described above. In this form the tweezers 5 A^2 are substantially like those already described, except that they are shorter and heavier, and they are connected together by means of the arms F, which arms are slotted 10 through a part of their length and are held together by means of a screw-bolt H and thumb-nut H', which screw-bolt extends through the slots f of the arms, and it will be readily seen that by loosening the nut the 15 arms may be brought into any desired position and by tightening the nut they will be held together. The ends of the arms F next the tweezers are made round, so that they will permit of a free movement of the tweezers. 20 The arms F are provided on one side near the outer end, with a recess f' to receive the tweezers A^2 , and the extreme outer ends of the arms are reduced and threaded, as shown at F' , and are provided with a thumb- 25 nut G, which serves to hold the tweezers in place when they are mounted on the ends of the arms in the manner already described. The tweezers are held to the arms by means of the screw-bolts B and thumb-nuts D in 30 the same manner that the tweezers A are held to the arms E.

To operate the forceps, the tweezers A or A^2 are clamped upon the article to be sol-

dered, and are held upon it by means of the screw-bolt and nut described above, and by 35 means of the different nuts the forceps may be brought in a desired position and securely held in place.

Having thus described my invention, I claim as new and desire to secure by Letters 40 Patent—

1. The forceps comprising two tweezers having screw-bolts extending transversely through them and a pair of arms having their inner ends pivoted together and their outer 45 ends journaled in the screw-bolts, substantially as described.

2. The forceps comprising two tweezers having screw-bolts extending transversely through them and swinging arms having re- 50 duced and screw-threaded outer ends, said outer ends being pivoted in the heads of the screw-bolts, substantially as described.

3. The forceps comprising two tweezers having screw-bolts extending transversely 55 through them and forming an axis on which they swing, and a pair of hinged arms having their outer ends reduced and pivoted in the ends of the screw-bolts and forming an axis on which the tweezers turn, substantially as 60 described.

DAVID MENDELSON.

Witnesses:

JOHN MORLEY,
SAMUEL J. CORNISH.