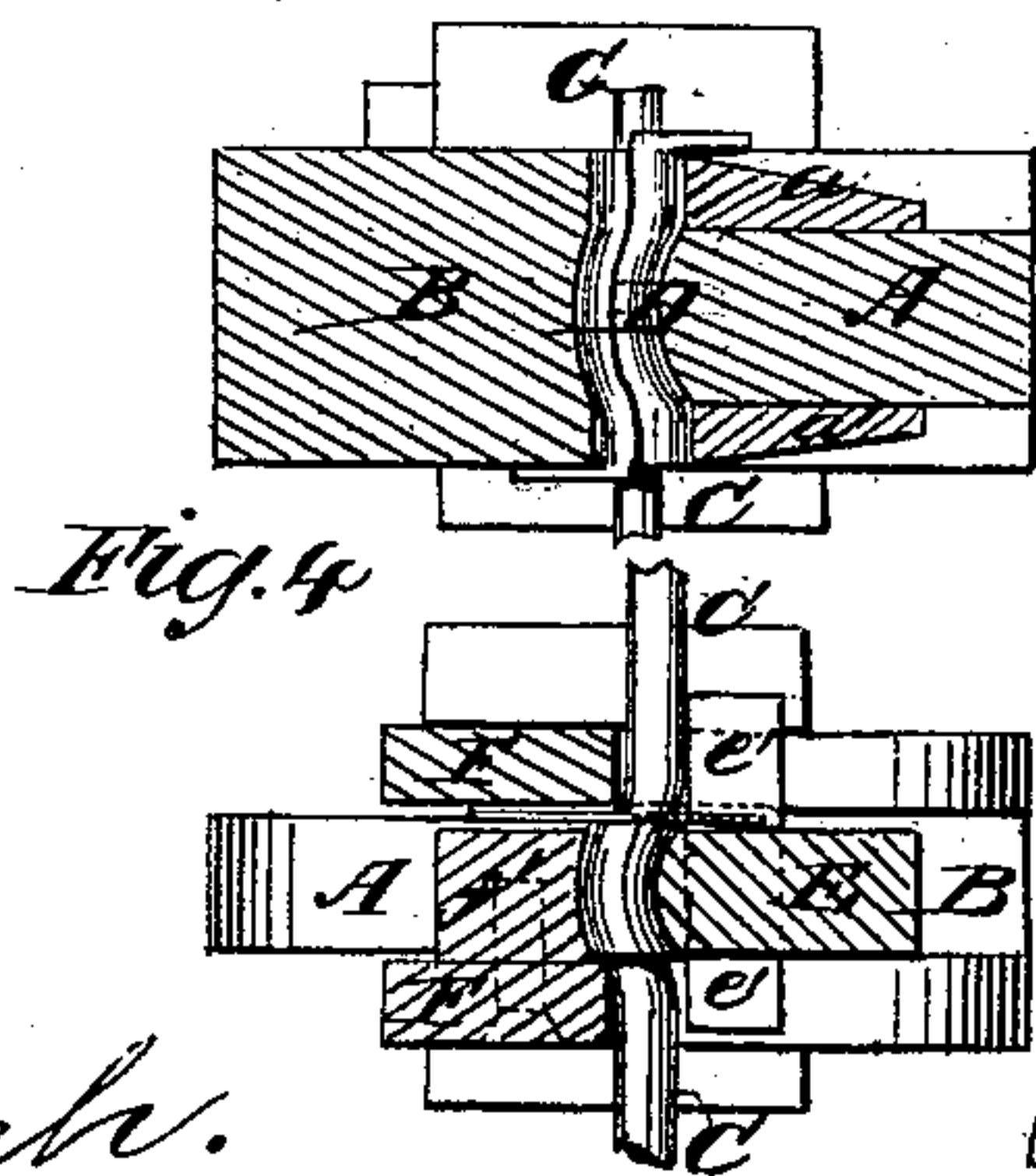
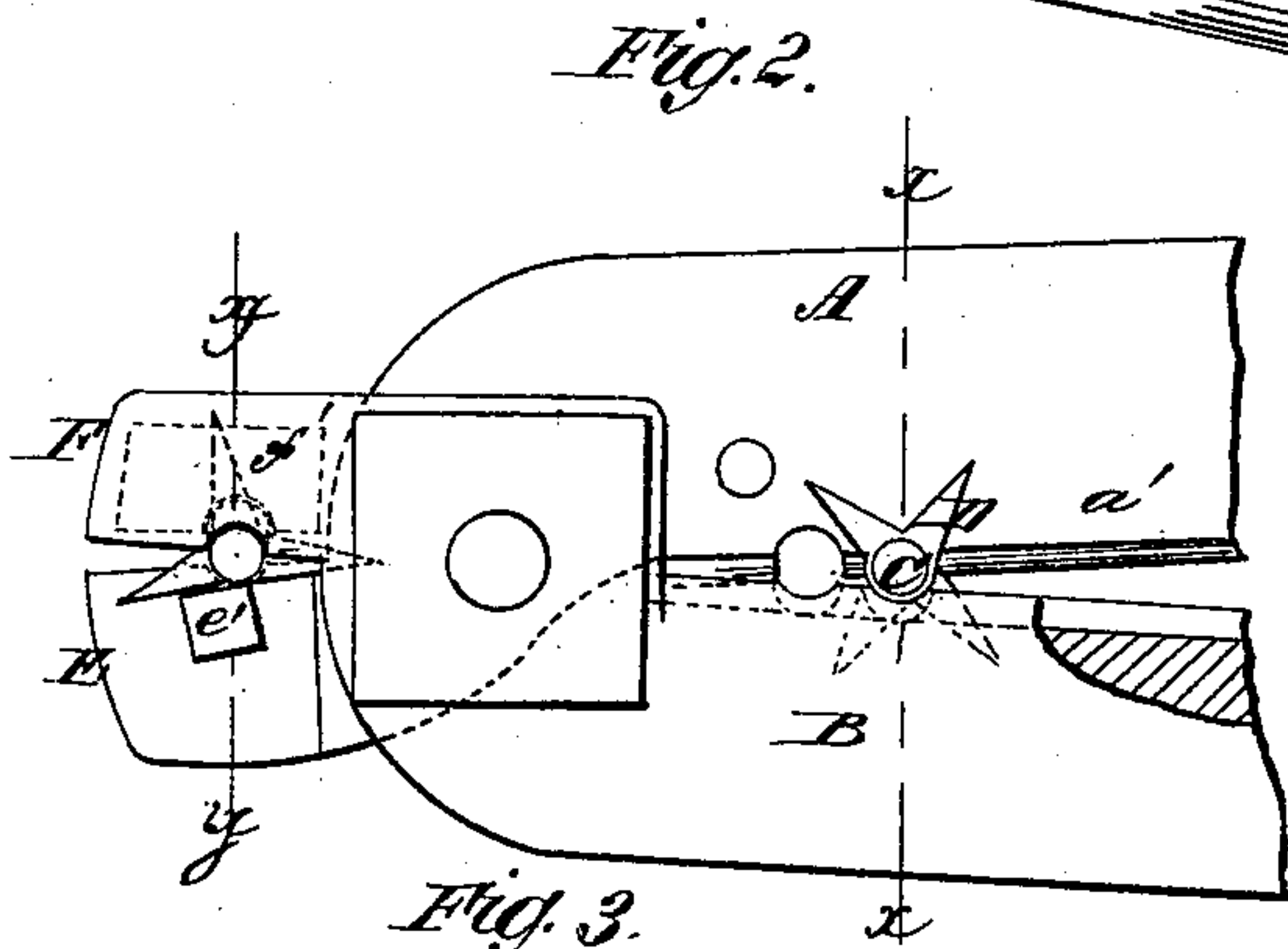
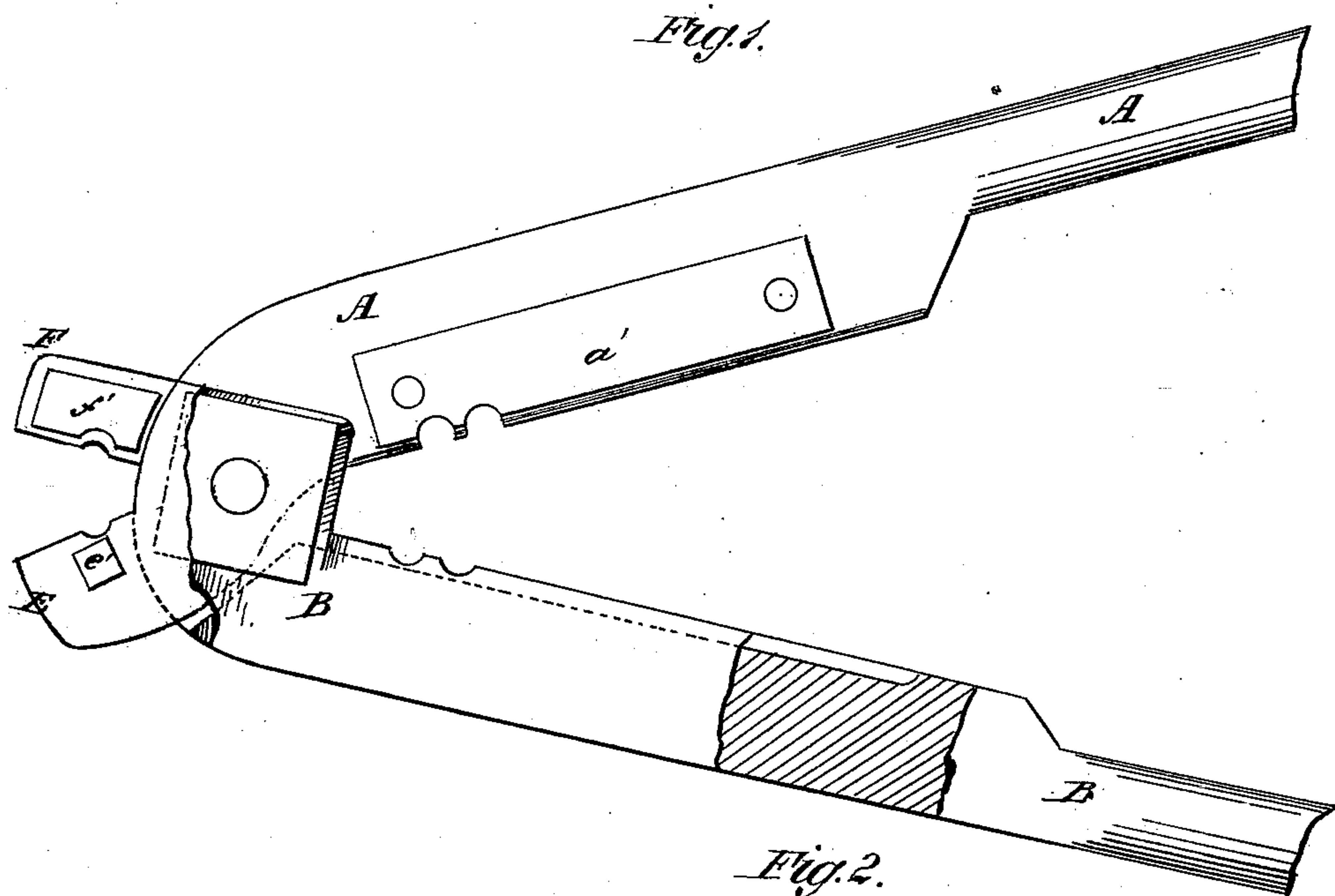


J. W. EDWARDS.
Pinchers for Applying Fence-Barbs.

No. 199,965.

Patented Feb. 5, 1878.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN W. EDWARDS, OF OSWEGO, ILLINOIS.

IMPROVEMENT IN PINCHERS FOR APPLYING FENCE-BARBS.

Specification forming part of Letters Patent No. **199,965**, dated February 5, 1878; application filed November 23, 1877.

To all whom it may concern:

Be it known that I, JOHN WESLEY EDWARDS, of Oswego, in the county of Kendall and State of Illinois, have invented a new and useful Improvement in Pinchers for Applying and Securing Barbs to Fence-Wires, of which the following is a specification:

In the drawings, Figure 1 is a side view of my improved pinchers opened, partly in section to show the construction. Fig. 2 is a side view of the forward part of the same closed. Fig. 3 is a cross-section of the same, taken through the line *x x*, Fig. 2. Fig. 4 is a cross-section of the same, taken through the line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved instrument for applying barbs to fence-wires, which shall be so constructed as to fasten the barbs on in such a way that they will not turn or slip lengthwise of the fence-wire, and which shall be simple in construction and convenient in use.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

A and B are the arms of the instrument, which are pivoted to each other at their forward ends, and are made of such a length as to give the leverage necessary to bend the fence-wire and barb.

The forward end of one of the arms A B is slotted to receive the end of the other arm, so that the two arms may work in line with each other, and without any side strain.

The forward part of the inner edge of the arm B is grooved longitudinally, and the inner edge of the other arm, A, has a rounded longitudinal projection formed upon it, with square shoulders *a'* along its sides, so as to form a bend in the fence-wire while holding the wire at each side of said bend straight.

The side shoulders *a'* may be a solid part of the arm A, or they may be separate pieces secured to the sides of the said arm.

In the inner edges of the arms A B, near their pivot, are formed one or more half-round notches to receive the wire while being operated upon and prevent it from slipping.

C represents the fence-wire, and D represents the barb. The barb D is made of sheet metal in the form of an open tube, having

barbs formed upon its ends and projecting at right angles with its length, the opening in the said tube being left sufficiently wide to enable it to be slipped upon the wire.

The tubular barb D is placed upon the wire C, the instrument is placed upon the said barb and wire, and its arms are pressed together, closing the tube of the barb and forming a bend in the said barb and wire, so that the barb cannot turn, slide, or come off.

To enable the instrument to be conveniently used for securing barbs already applied to the fence-wire, the ends E F of the arms A B are made to project beyond their pivot, and are so formed as to close like the jaws of a pair of pliers when the arms A B are brought together.

To the inner side of one part of the projection F is attached a block, *f'*, space being left between the said block and the other part of the said projection F to receive the points of the barb D. The inner edges of the projections E F are notched to receive the wire C and barb D, and projections *e'* are attached to the opposite sides of the projection E opposite the parts of the projection F, so that the wire may be held between them and the said parts of the projection F upon the opposite sides of the barb D, to keep it straight upon the opposite sides of its bend.

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

1. The instrument formed by pivoting the arm B, provided with a longitudinal groove, and one or more transverse notches in its inner edge, and the arm A, provided with a longitudinal projection, square shoulders, and one or more transverse notches in its inner edge, to each other at their forward ends, substantially as herein shown and described.

2. The combination of the projection E, provided with a longitudinal groove, a transverse notch, and side projections *e'*, and the projection F, provided with a transverse notch, and having a block, *f'*, attached to the inner side of one of its parts, with the pivoted arms A B, substantially as herein shown and described.

JOHN WESLEY EDWARDS.

Witnesses:

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FRANK STROSSMAN.