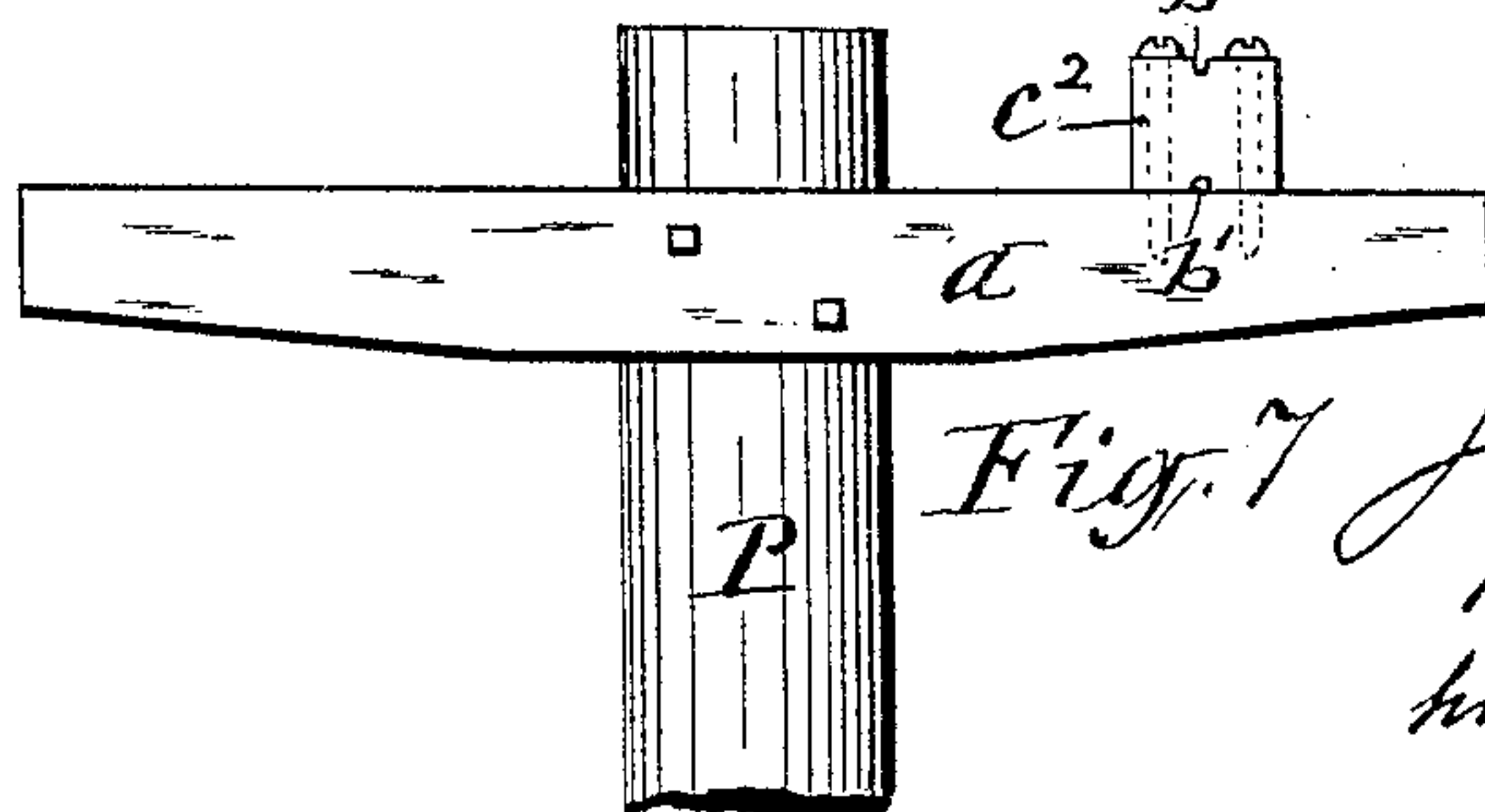
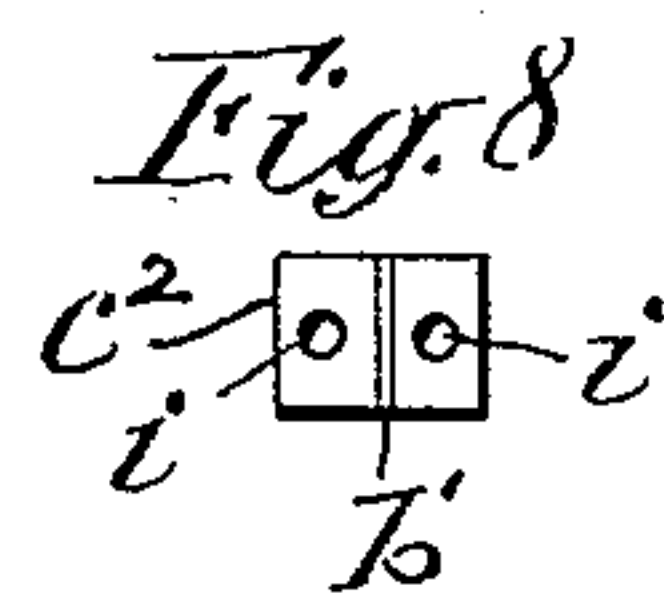
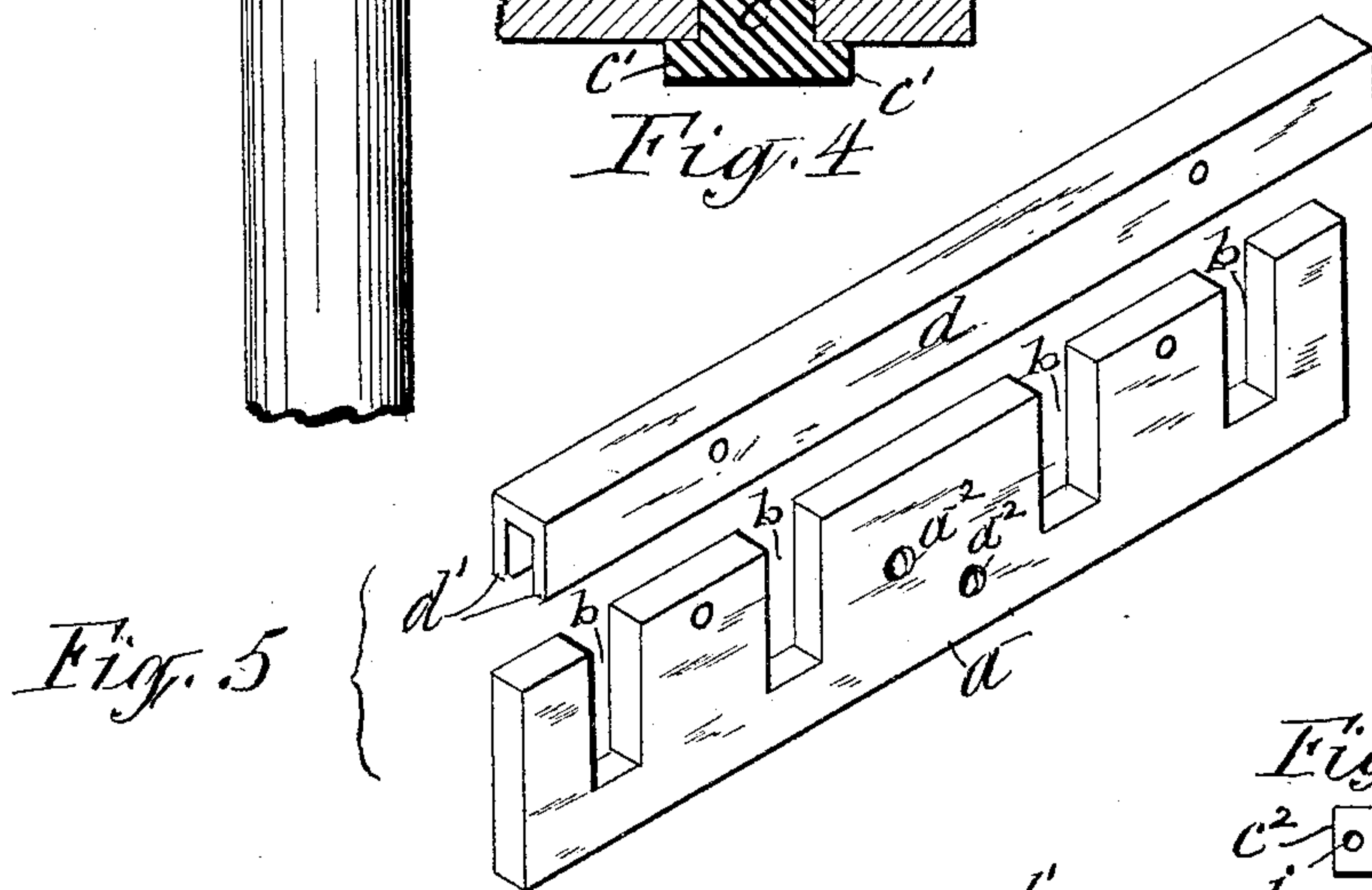
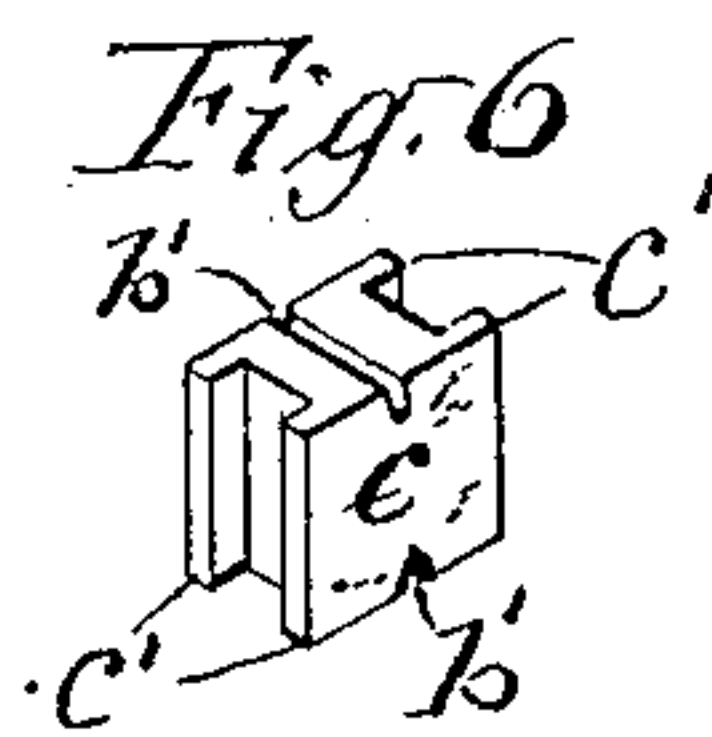
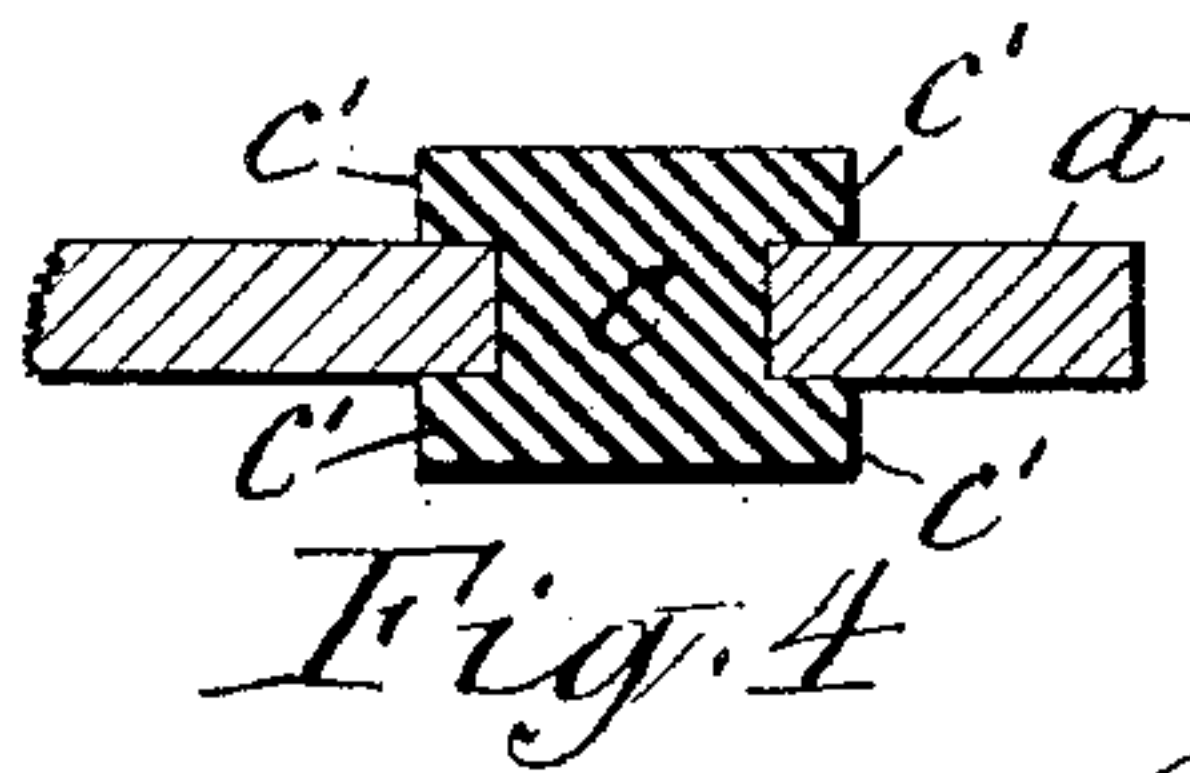
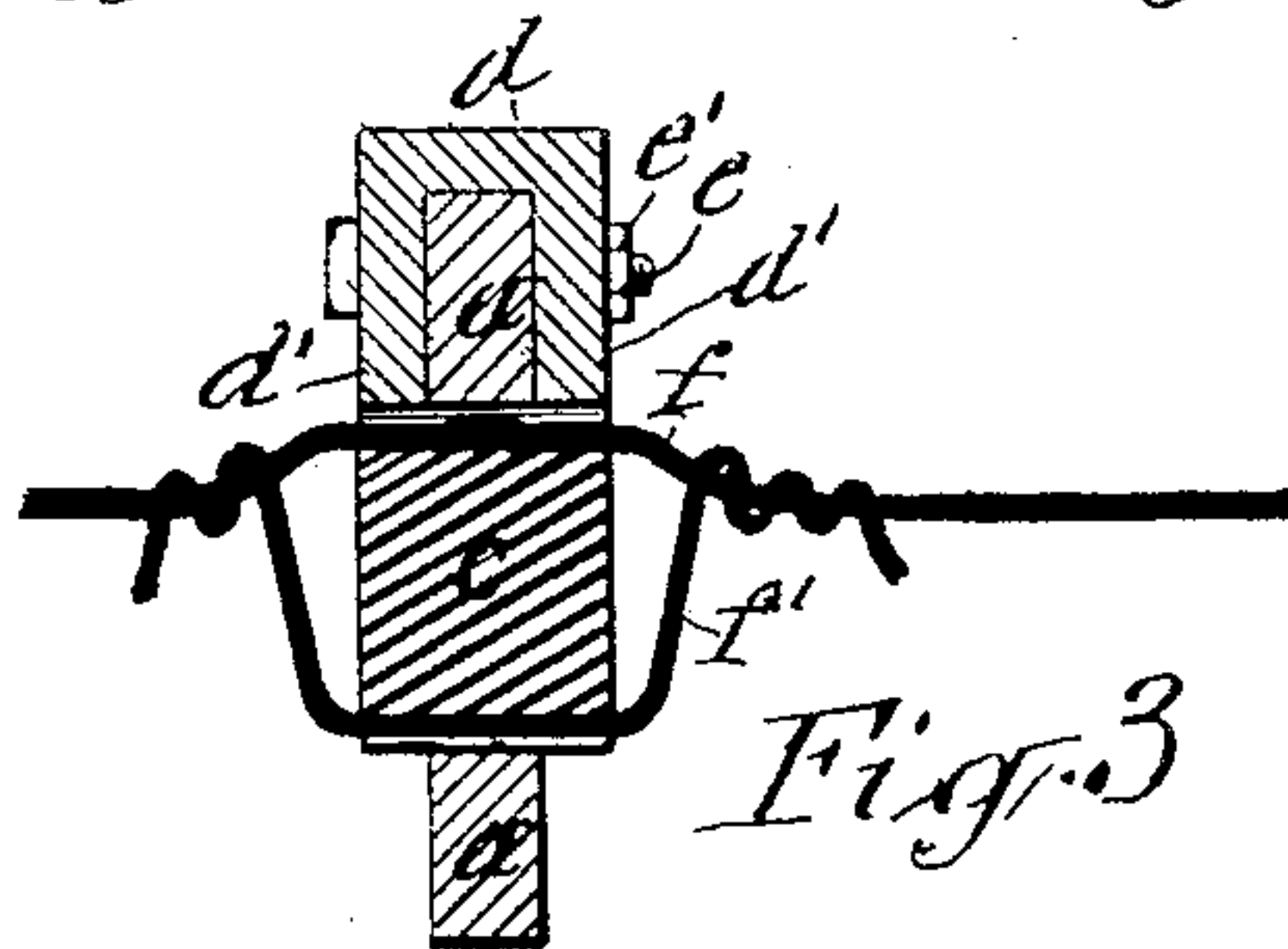
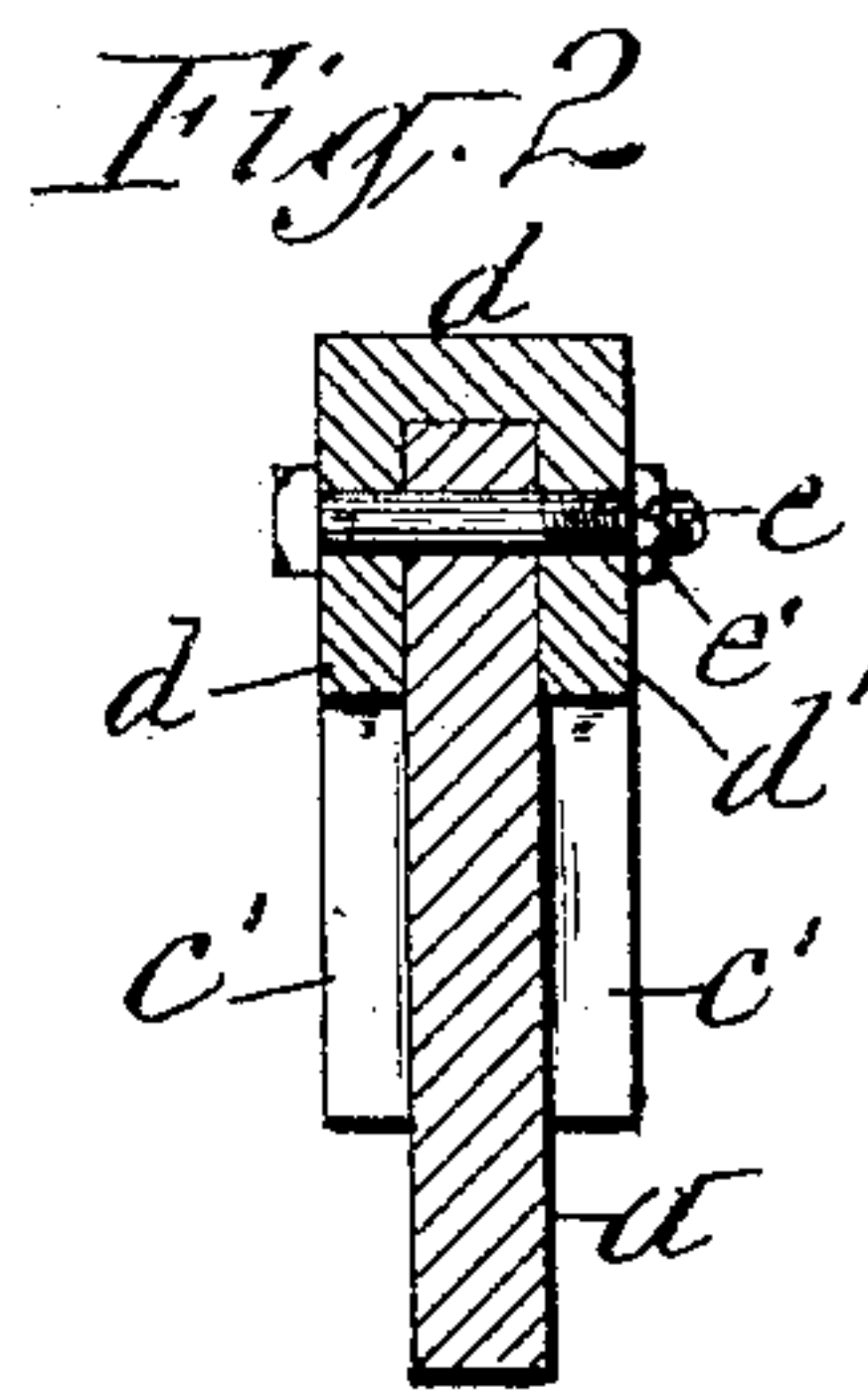
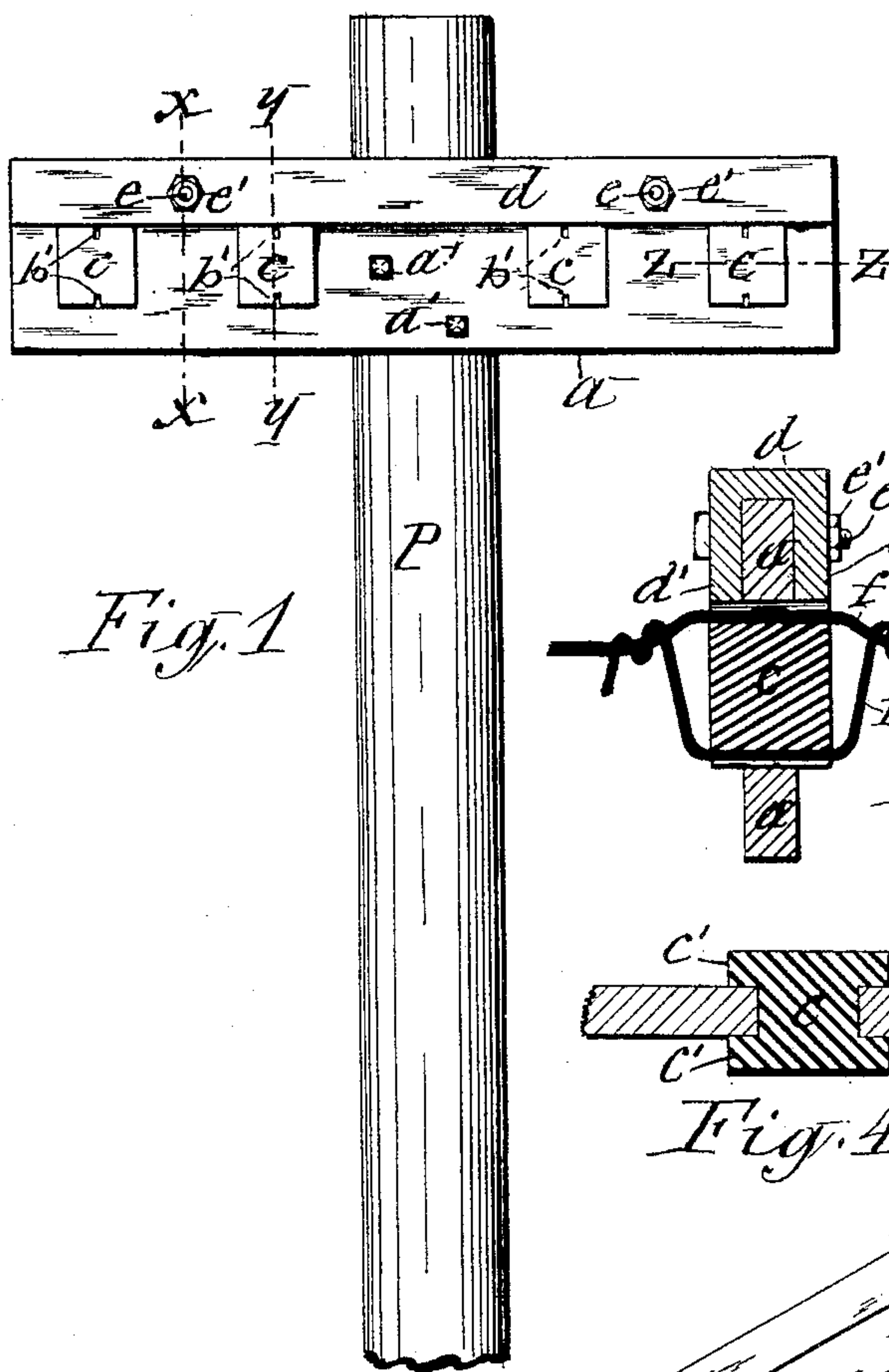


(No Model.)

J. E. SHARPE.  
ELECTRIC WIRE INSULATOR.

No. 581,088.

Patented Apr. 20, 1897.



WITNESSES:  
J. B. Smith.  
M. A. Leyden.

INVENTOR:

John E. Sharpe  
By E. Laas  
his ATTORNEY



# UNITED STATES PATENT OFFICE.

JOHN E. SHARPE, OF ONEIDA, NEW YORK.

## ELECTRIC-WIRE INSULATOR.

SPECIFICATION forming part of Letters Patent No. 581,088, dated April 20, 1897.

Application filed February 8, 1897. Serial No. 622,482. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN E. SHARPE, of Oneida, in the county of Madison, in the State of New York, have invented new and useful  
5 Improvements in Electric-Wire Insulators, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of electric-wire insulators which are employed for  
10 securing said wire to a pole or other suitable support.

The object of the invention is to provide an insulator which shall be more readily, more  
15 securely, and more conveniently fastened to its support, and shall be as readily detached when required to be renewed, and shall also be capable of more securely holding the wire; and to that end the invention consists, chiefly,  
20 of a block of non-conducting material provided with parallel wire-receiving grooves respectively in its top and bottom and with channels at opposite sides of and at right angles to said grooves for the reception of fastening devices by which to secure said block  
25 to its support; and the invention also consists in a novel construction of a supporting-arm and its combination with the aforesaid insulator-block, all as hereinafter more fully described, and set forth in the claims.

In the annexed drawings, Figure 1 is a face view of an electric-wire insulator embodying my invention. Figs. 2 and 3 are enlarged  
35 vertical transverse sections respectively on lines X X and Y Y in Fig. 1 and showing in one instance the wire attached. Fig. 4 is an enlarged longitudinal horizontal section on line Z Z in Fig. 1. Fig. 5 is a detached perspective view of the supporting-arm and the  
40 tie-bar used in connection therewith. Fig. 6 is a perspective view of the insulator-block. Fig. 7 illustrates a modification of the insulator-block secured to the supporting-arm, and Fig. 8 is a top plan view of said block.

45 Similar letters of reference indicate corresponding parts.

*a* represents the supporting-arm of the insulators. Said arm is fastened to a pole *P* or other suitable object by means of either spikes  
50 or screws *a' a'*, passing through the holes *a<sup>2</sup> a<sup>2</sup>* in the central portion of the arm. This arm I prefer to form of a metal plate disposed verti-

cally edgewise and provided in its longitudinal edge, preferably in the top edge, with recesses or notches *b b* for the reception of the  
55 insulator-blocks *c c*. These blocks are composed of either glass or porcelain or other suitable and well-known non-conducting material and are provided with parallel grooves *b' b'* respectively in their tops and bottoms  
60 for the reception of the electric wire *f* and the binding-wire *g*.

The sides of the recesses *b b* are parallel, and the blocks *c c* are shaped correspondingly to fit closely within said recesses, into which  
65 they are inserted from the top thereof. The blocks are provided with flanges *c' c'*, which lap onto opposite sides of the arm *a* and thereby confine the blocks in the recesses *b b*, said flanges forming vertical grooves, into which  
70 the vertical edges of the arm are closely fitted. These recesses are of sufficient depth to cause the top of the arm *a* to project above the tops of the blocks *c c* and permit the attachment of the tie-bar *d* to the top of the arm. This  
75 tie-bar is provided with longitudinal downwardly-projecting flanges *d' d'*, which embrace the sides of the arm *a* and bear on the tops of the blocks *c c*, which are thus securely locked in the recesses *b b*. The tie-  
80 bar is detachably secured to the arm by bolts *e e*, passing transversely through said parts and provided with nuts *e'*.

In case it becomes necessary to detach or  
85 remove the electric wire *f* or renew the insulator-block *c* the bolts *e e* are readily removed and the tie-bar *d* either slipped endwise on the arm *a* or lifted from it, and then the aforesaid block *c* can be lifted out of the  
90 recess *b*.

It is obvious that the replacing of the insulator-block *c* is equally as readily accomplished.

In the modification shown in Fig. 7 of the drawings the insulator-block *c<sup>2</sup>* is provided  
95 with channels or holes *i i* at opposite sides of and at right angles to the grooves *b' b'*. Said block is fastened to the arm *a* or other suitable support by either spikes or bolts passing through said holes.  
100

What I claim as my invention is—

1. An electric-wire insulator consisting of a block of non-conducting material provided with parallel wire-receiving grooves respec-

tively in its top and bottom, and with channels at opposite sides of and at right angles to said grooves, for the reception of fastening devices, by which to secure said block to its support.

2. An electric-wire support consisting of a supporting-arm provided with recesses in its longitudinal edge, insulator-blocks seated in said recesses and a tie-bar secured to said edge of the arm and extending across the insulator-blocks to confine them in their seats as set forth.

3. An electric-wire support consisting of a supporting-arm formed of a metal plate sustained vertically edgewise and provided with recesses in its top, insulator-blocks seated in said recesses and provided with flanges lapping onto opposite sides of the aforesaid arm, and a tie-bar detachably secured to the top

of the supporting-arm and extending across the tops of the insulator-blocks as and for the purpose set forth.

4. The combination of the supporting-plate *a* provided with the recesses *bb*, the insulator-blocks *cc* seated in said recesses and provided with flanges *c' c'*, the tie-bar *d* riding on the said supporting-plate and provided with flanges *d' d'* embracing the sides of said plate and bearing on the insulator-blocks, and bolts *ee* securing said tie-bar to the plate substantially as described and shown.

In testimony whereof I have hereunto signed my name this 30th day of January, 1897.

JOHN E. SHARPE. [L. S.]

Witnesses:

H. B. SMITH,  
J. J. LAASS.