

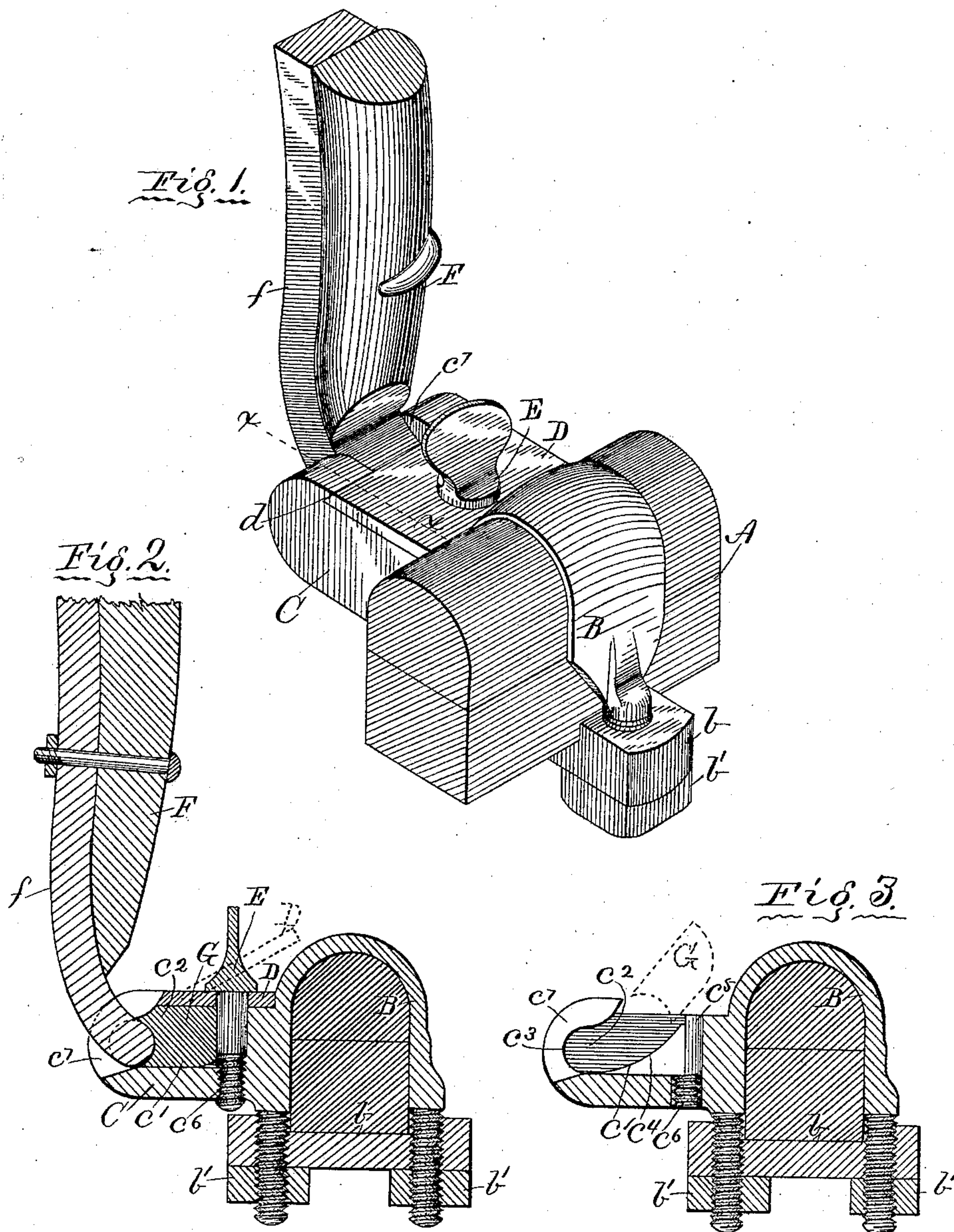
(No Model.)

2 Sheets—Sheet 1.

E. A. FARR.  
THILL COUPLING.

No. 387,060.

Patented July 31, 1888.



Witnesses:  
G. B. Richards,  
W. Thomson.

Inventor:  
Eugene A. Farr,  
By G. B. Richards,  
Atty.

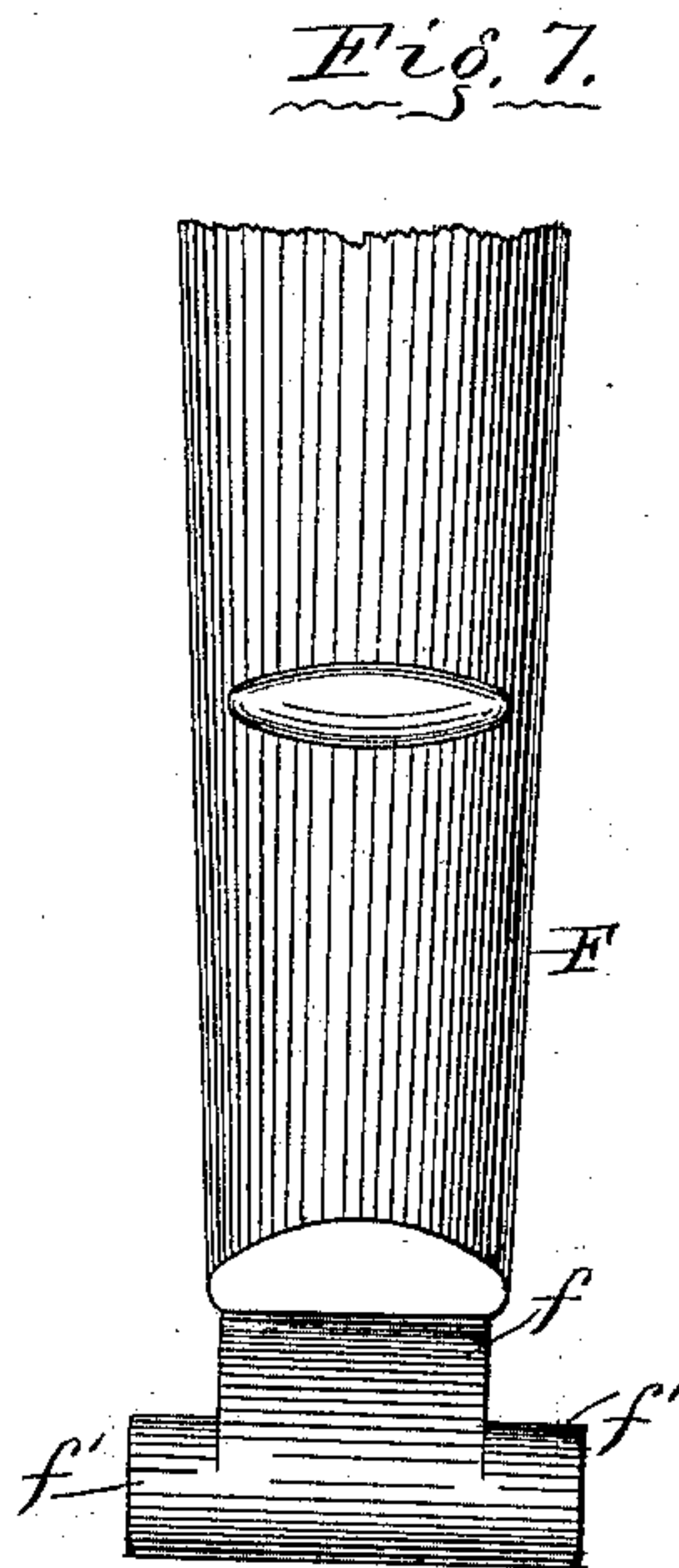
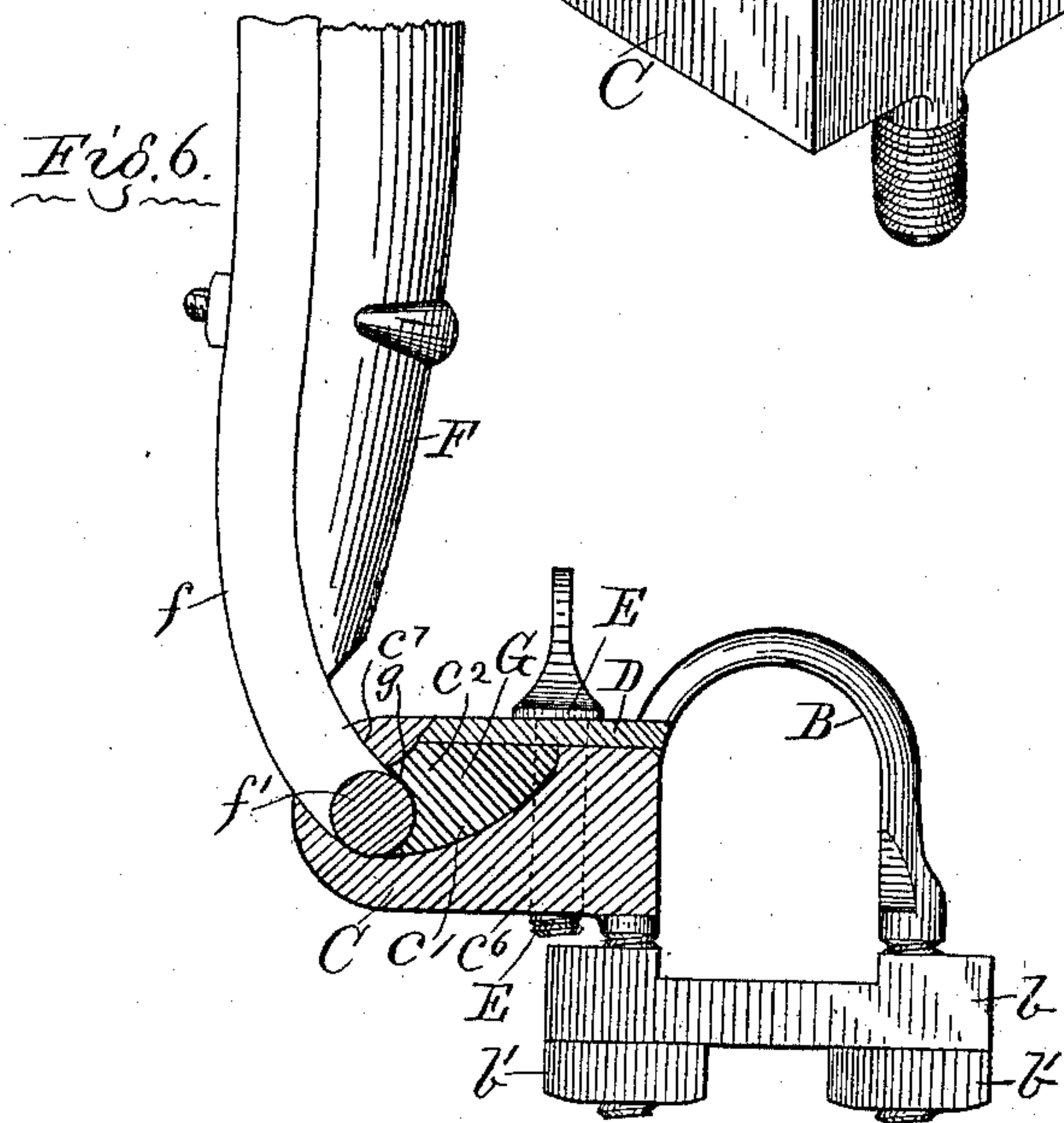
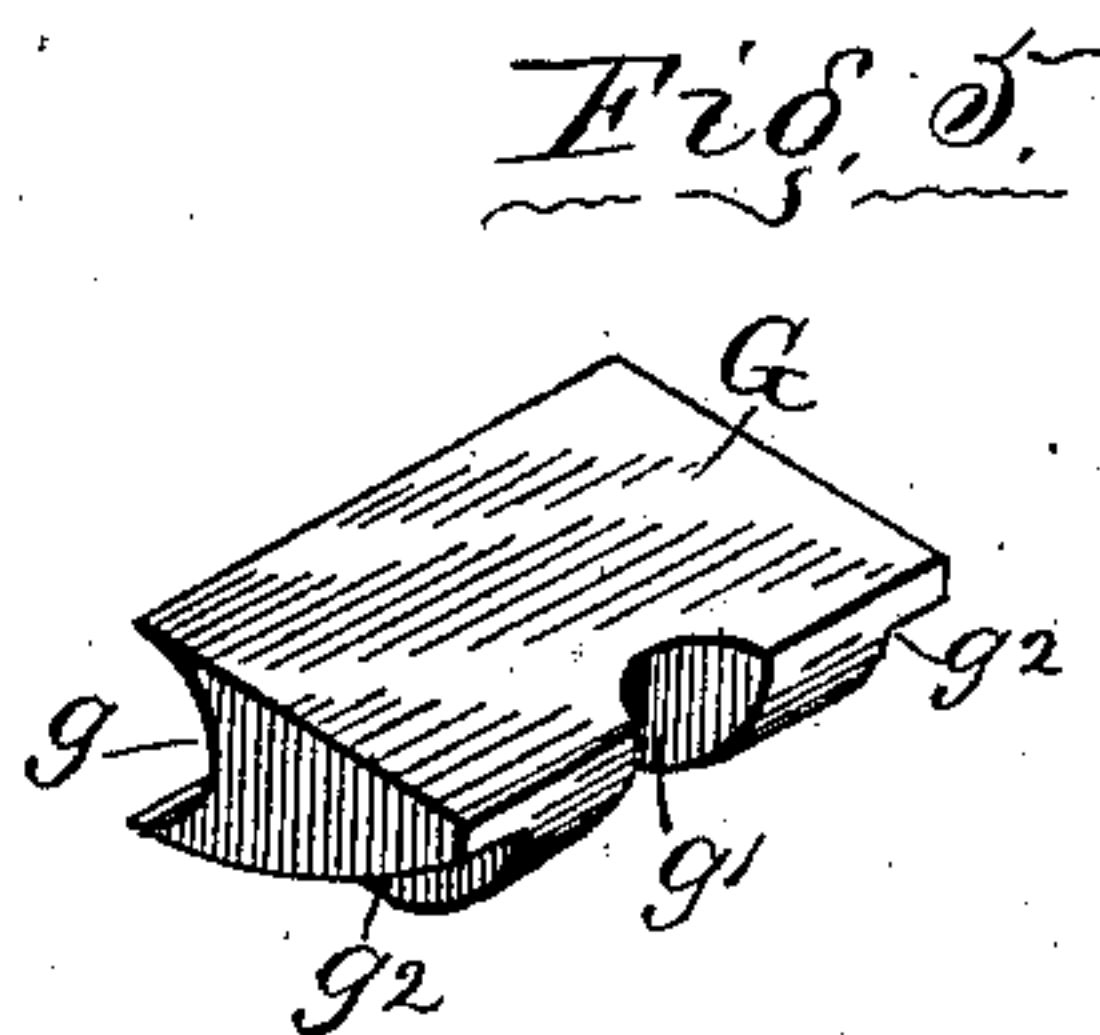
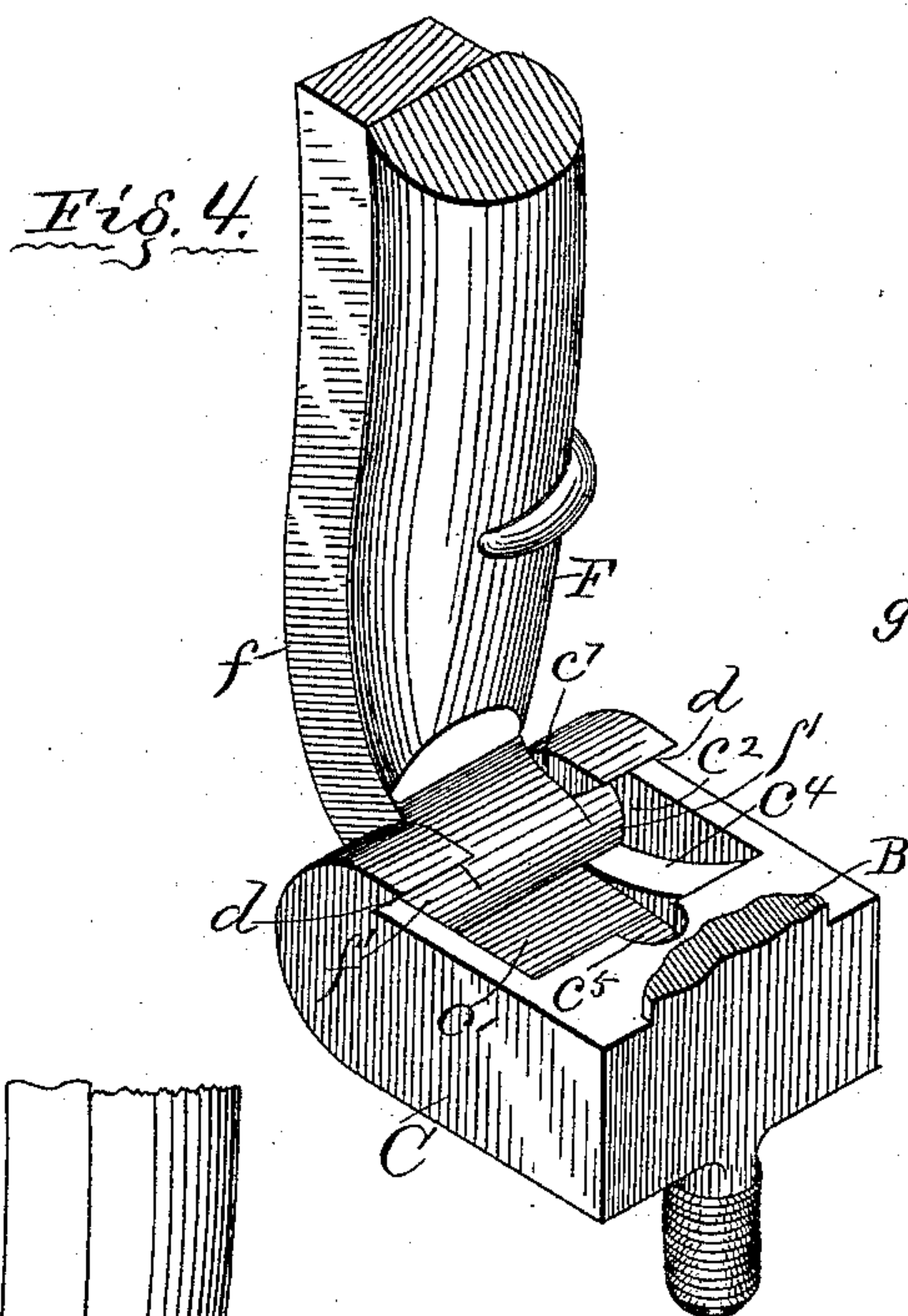
(No Model.)

2 Sheets—Sheet 2.

E. A. FARR.  
THILL COUPLING.

No. 387,060.

Patented July 31, 1888.



Witnesses:  
G. R. Richards.  
W. Thomson.

Inventor:  
Eugene A. Farr,  
By V. B. Richards,  
Att'y.



# UNITED STATES PATENT OFFICE.

EUGENE A. FARR, OF GALESBURG, ILLINOIS.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 387,060, dated July 31, 1888.

Application filed February 8, 1887. Serial No. 226,928. (No model.)

*To all whom it may concern:*

Be it known that I, EUGENE A. FARR, a citizen of the United States, residing at Galesburg, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification.

This invention relates to thill-couplings; and it consists in constructions and combinations hereinafter described and claimed.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective showing my coupling, part of an axle, and the rear end of a thill; Fig. 2, a central sectional elevation of the parts shown at Fig. 1; Fig. 3, a central sectional elevation of part of the coupling; Fig. 4, a perspective of part of the coupling; Fig. 5, a perspective of the rubber block used with my coupling; Fig. 6, a sectional elevation of the coupling in the line  $x x$  in Fig. 1, and elevation of other parts; Fig. 7, an elevation of one end of a thill.

Referring to the drawings by letter, the same letter indicating the same part in the different figures, A represents a part of an ordinary buggy or carriage axle.

B is a clip, formed similarly to an ordinary axle-clip, except as hereinafter described, and is secured to the axle in the ordinary manner by a bridle-bar,  $b$ , and nuts  $b'$ .

C is a case, which projects as a bracket from the clip B, with which it is preferably integral, as shown. The case C has a cavity,  $c'$ , in its upper side and an inclined groove,  $c''$ , in the walls at each side of said cavity, which grooves terminate with semi-cylindrical ends  $c^3$ . (See Fig. 3.) At each side of the cavity  $c'$  is also an inclined projection,  $c^4$ . (See Fig. 1.) A semicircular groove,  $c^5$ , is in the rear wall of the cavity  $c'$ , and a screw-threaded hole,  $c^6$ , extends through the bottom of the case coincident with the groove  $c^5$ .

D is a plate fitted to the upper side of the case C. The beveled front edge of the plate D fits beneath a V-shaped groove,  $d$ , in each side wall of the case C, and a groove in the plate D fits snugly against the upper front part of the clip B. The plate D has a hole through which a wing-headed bolt, E, passes, which is screw-threaded at its lower end and screws into the hole  $c^6$ .

F is one end of an ordinary thill of a buggy or carriage, the thill-iron  $f$  of which has a trunnion or short cylindrical stud,  $f'$ , projecting therefrom at its end and at each of its sides. (See Fig. 7.)

G is the anti-rattler block, formed of india-rubber or any suitable elastic composition. The block G is formed, substantially as shown at Fig. 5, with a flat upper side, a transverse groove,  $g$ , in its front side, a vertical groove,  $g'$ , in its rear side, a groove,  $g''$ , in each of its lateral sides, and a bottom side inclined upwardly nearly to its rear side.

The thill-iron fits snugly in a groove,  $c^7$ , in the front side of the case C, and the trunnions  $f'$  are seated against the bearing-surfaces  $c^3$ . The groove  $g$  in the rubber block G rests against the trunnions  $f'$  and lower rounded end of the thill-iron, and this block G is held firmly by the plate D, which is in turn held by the bolt E and by means of its front side resting in the V-shaped grooves  $d$ .

To couple the thills to the vehicle, the plate D and the rubber block G are first removed. The trunnions  $f'$  are then passed along the grooves  $c^2$  to their seats  $c^3$ . The rubber block G is then inserted in its seat by first turning it into the position shown by dotted lines at Fig. 3, when it is pushed forward, with its grooves  $g''$  resting on the inclines  $c^4$ . The plate D is then inserted by first turning it into position, as shown by dotted lines at Fig. 2, when the bolt E may be inserted and easily screwed in by the hand of the operator to hold the parts firmly and securely together. The uncoupling is effected in an opposite and evident manner.

This coupling (an anti-rattler) is safe, strong, and simple, and the working parts thereof well protected from the weather, and the operator, without the use of any thill-coupling clamps or any implements whatever, can readily, easily, and quickly couple or uncouple the thills from the vehicle. It may be used to couple poles or thills to vehicles.

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

1. In a thill-coupling, in combination, a case, C, having a cavity in its upper side, bearing-surfaces  $c^3$ , and V-shaped grooves  $d$ , a thill-

iron having trunnions  $f'$ , a rubber block, G, having groove  $g$ , plate D, having its forward side fitted to the V-shaped groove  $d$ , and binding-bolt E, substantially as and for the purpose specified.

5 2. In a thill-coupling, in combination, clip B, case C, having a cavity in its upper side, bearing-surfaces  $c^3$ , side grooves,  $c^2$ , hole  $c^6$ , and V-shaped grooves  $d$ , thill-iron having

trunnions  $f'$ , rubber block having grooves  $g$  10  $g^2$   $g'$ , plate D, and bolt E, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

EUGENE A. FARR.

Witnesses:

R. C. HUNT,

H. M. RICHARDS.