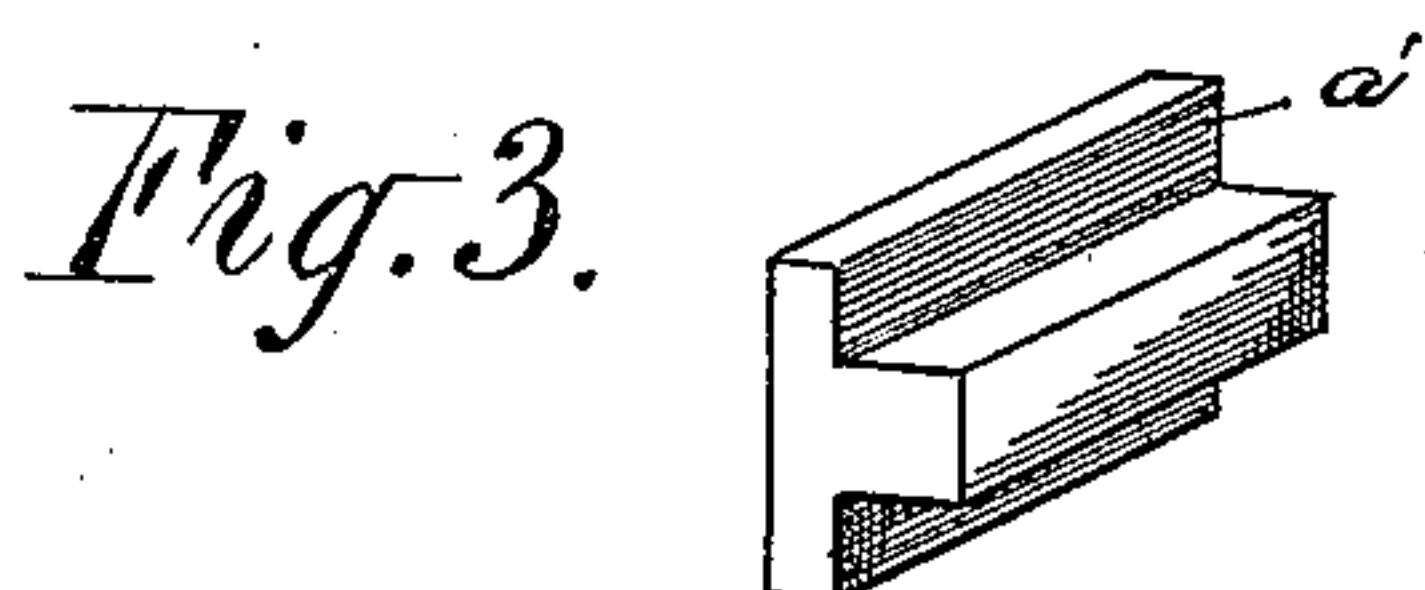
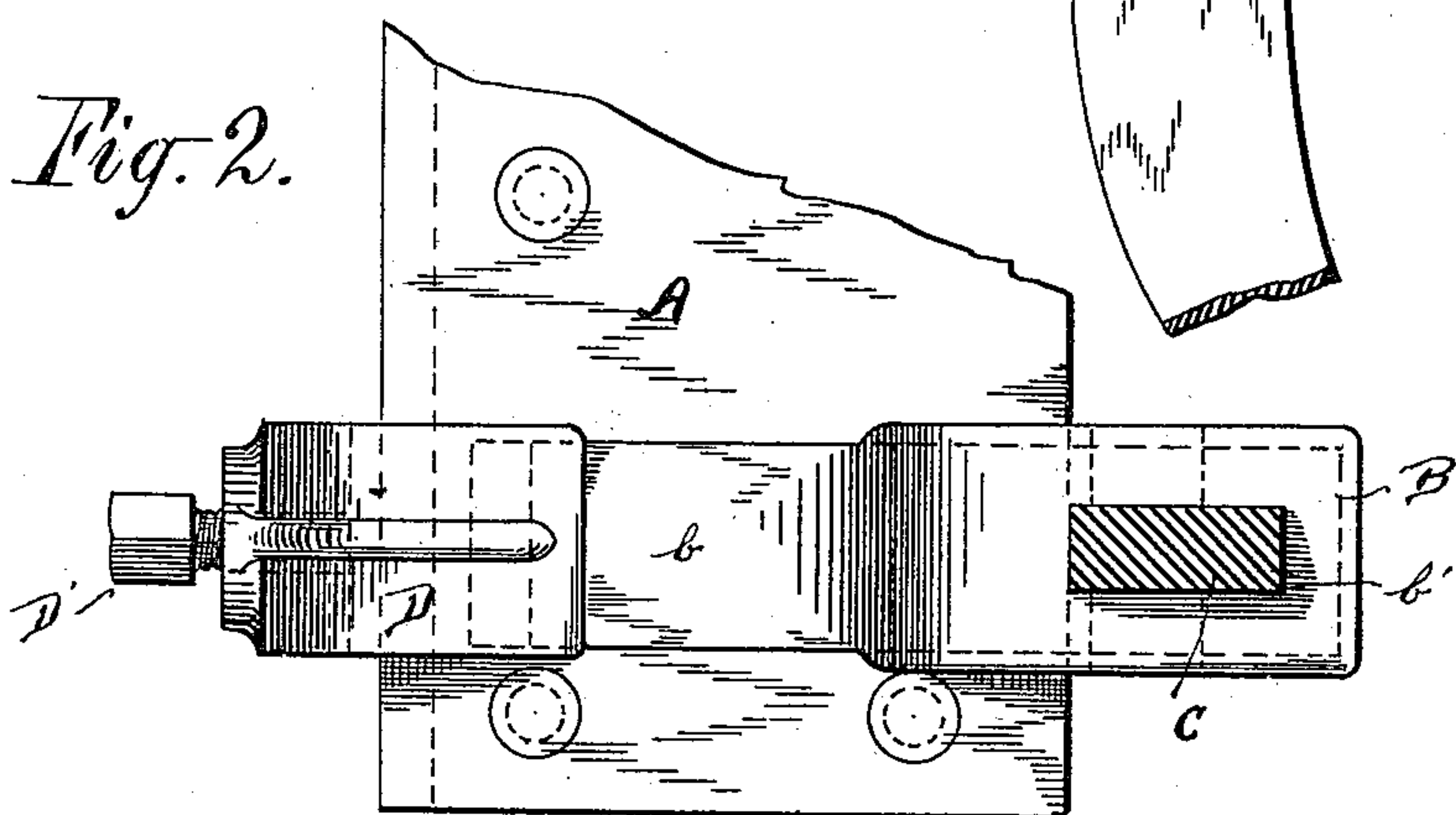
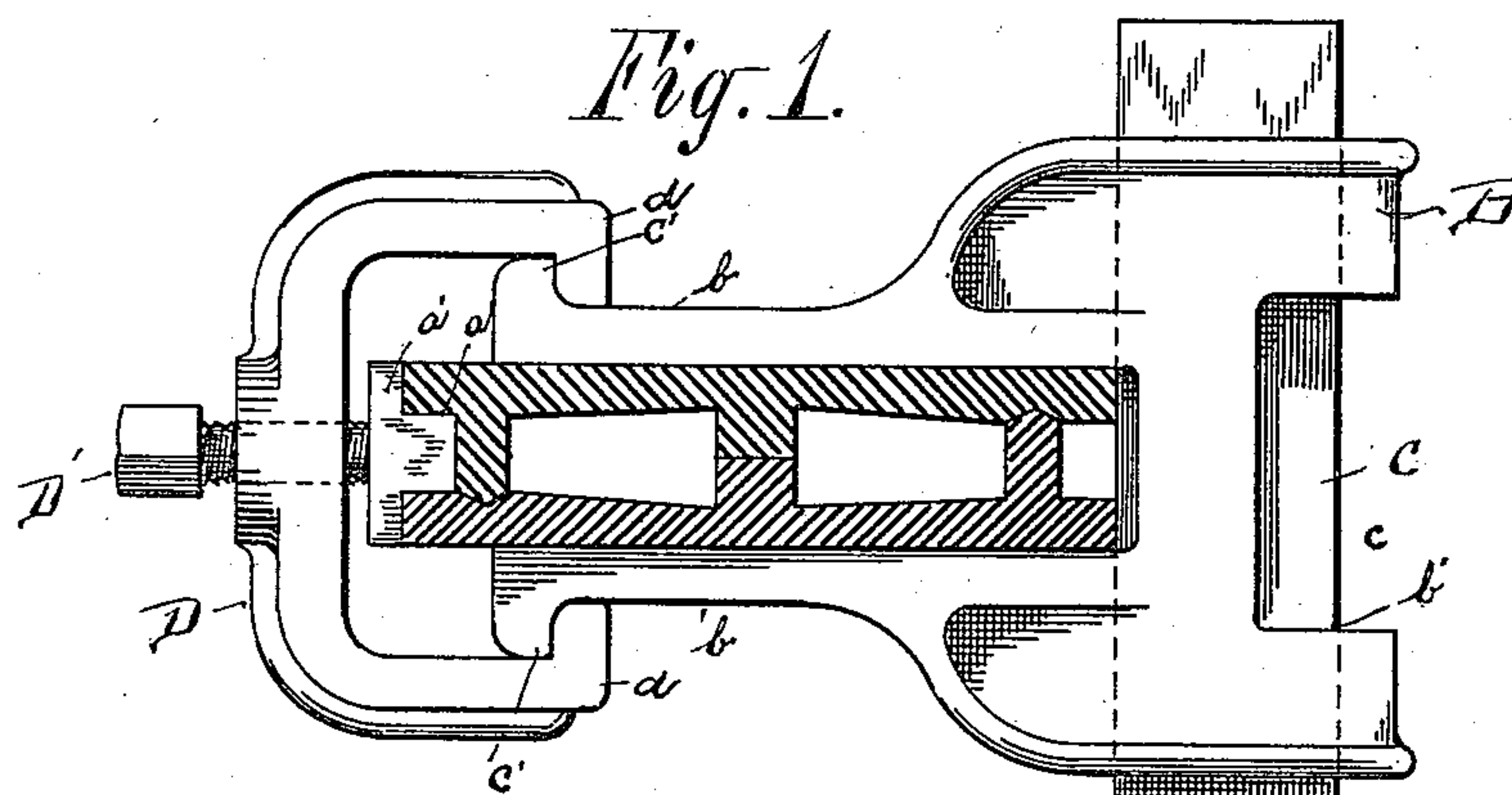


(No Model.)

D. E. BARTON.
CULTIVATOR CLAMP, &c.

No. 451,255.

Patented Apr. 28, 1891.



Witnesses.
H. H. Anteverde

Frank D. Lewis

Inventor
Delbert E. Barton
By *Boone & Co.*

UNITED STATES PATENT OFFICE.

DELBERT E. BARTON, OF SAN FRANCISCO, CALIFORNIA.

CULTIVATOR-CLAMP, &c.

SPECIFICATION forming part of Letters Patent No. 451,255, dated April 28, 1891.

Application filed September 24, 1890. Serial No. 365,989. (No model.)

To all whom it may concern:

Be it known that I, DELBERT E. BARTON, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Cultivator-Clamps for Attachment of Teeth; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

My invention has relation to certain new and useful improvements in clamps for attachment of cultivator-teeth to the beam thereof; and it consists of the parts and details of construction, as will be hereinafter more fully shown in the drawings, described and pointed out in this specification.

The object of my invention consists in providing a clamp for attachment of the cultivator-tooth, so as to permit of the vertical and lateral adjustment thereof without necessitating the removal thereof from the beam.

My invention further consists in providing a clamp which shall permit of the attachment of the tooth without requiring the bolting thereof, thereby obviating weakening of the beam by having holes formed therein for such purpose; and my invention further consists in providing a clamp which shall be simpler of construction, less expensive, more effective in its operation, and lighter in its weight, thereby reducing cost in transportation, than any device of a similar nature heretofore known to me.

Referring to the drawings forming a part of this application, wherein similar letters of reference are used to denote corresponding parts throughout the entire specification and drawings, Figure 1 is an end view, Fig. 2 a top plan view, and Fig. 3 a detail view, of the clamp-wedge.

The letter A is used to represent the cultivator-beam, which is provided with the longitudinal grooves *a*.

The clamping-plate is indicated by the letter B, which plate is cut away or bifurcated so as to form the forwardly-extending arms *b*, which overlap and embrace the beam A, as clearly shown in Fig. 1. The enlarged outer end of said frame or clamp is provided with

the vertical opening *b'*, within which fits and works the cultivator-tooth C. The rear face of the clamp is cut away, as shown at *c*, so as to relieve the clamp of surplus material, thereby reducing the weight thereof. However, if so desired, the same may be formed flush. The bifurcated portion extends backward and intercepts the vertical opening, thus allowing the outer or rear face of the beam to project therein, so as to contact with the inner face of the cultivator-tooth. (Clearly shown in Fig. 1.) The ends of the forwardly-projecting arms *b* are enlarged or cut away so as to form upwardly-extending shoulders *c'*, over which the inwardly-projecting ends *d* of brace D are adapted to fit. Said brace securely holds the clamp B in its adjusted position and regulates its tension upon the cultivator-tooth. Centrally through the brace works the set-screw D', which passes through the screw-threaded opening formed therein. The inwardly-projecting end of thumb-screw D' bears against the clamp block or wedge *a*, as clearly shown. It is obvious that, the clamp having been secured upon the beam and tooth C adjusted within the tooth-opening *b'*, the tightening or loosening of set-screw D' increases or decreases the tension upon tooth and beam. Inasmuch as the outer face of the beam projects into the tooth-opening *b'*, the tightening of the clamp necessarily causes the same to bind tightly against the tooth, and consequently holds the same in position. The tightening of set-screw D' further serves to cause the brace to bear tightly against the shouldered ends of the clamp-arms, and thus serve to cause the latter to impinge tightly against the top and bottom of the beam. When it is desired to decrease the space between the cultivator-teeth, so as to increase the number of teeth upon the beam, the loosening of the set-screw releases the binding thereof upon the beam and permits the lateral movement thereof upon the beam, and at the same time removing the outer face of the beam from contact with the cultivator tooth or teeth permits, if so desired, the raising or lowering of the latter, thus permitting an increase or decrease in the depth of the cut of the tooth with the least amount of trouble. By the removal of brace D from the clamping-plate the tooth and clamp may be removed

from the cultivator-beam. Thus I permit of the ready attachment or detachment of the clamping-plate from the cultivator-beam. However, by sufficiently releasing the pressure upon the beam by loosening the set-screw, the cultivator-tooth may be removed in case of breakage or damage and others inserted in place thereof.

I am aware that minor changes may be made in the arrangement of parts and details of construction herein shown and described without necessitating or creating a departure from the nature and scope of my invention.

Having thus described my invention, what I claim as new, and desire to secure protection in by Letters Patent of the United States, is—

1. An attaching device for cultivator, harrow, or plow teeth, consisting of the clamp provided with forwardly-extending arms adapted to embrace the cultivator-beam, said

clamp having a tooth-opening formed therein in a plane at right angles to the reception of said beam, and of the securing-brace connecting the forwardly-extending arms and adapted to regulate the tension or binding of the tooth, substantially as set forth and described.

2. The combination of the clamp adapted to receive between its forwardly-extending arms the cultivator-beam and having an opening to receive the tooth-standard at right angles to said beam and adapted to permit the abutment of said tooth against said beam, the brace or yoke engaging said clamp, and the binding-screw engaging said clamp-block, substantially as set forth.

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

DELBERT E. BARTON.

Witnesses:

N. A. ACKER,
P. A. WAGNER.