

(No Model.)

H. H. SATER.

DEVICE FOR ATTACHING ROLLER COLTERS TO PLOWS.

No. 252,902.

Patented Jan. 31, 1882.

Fig. 1.

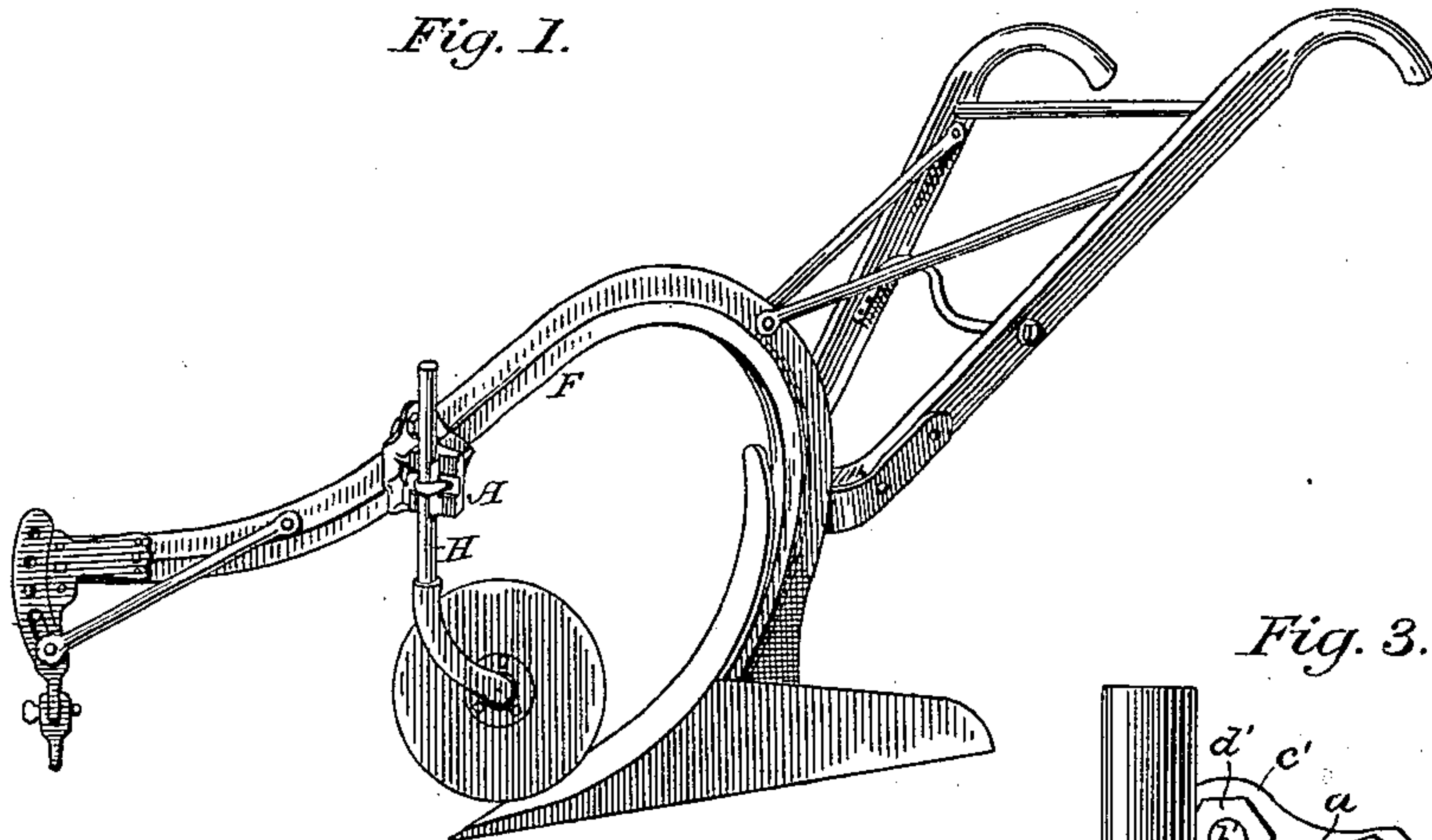


Fig. 2.

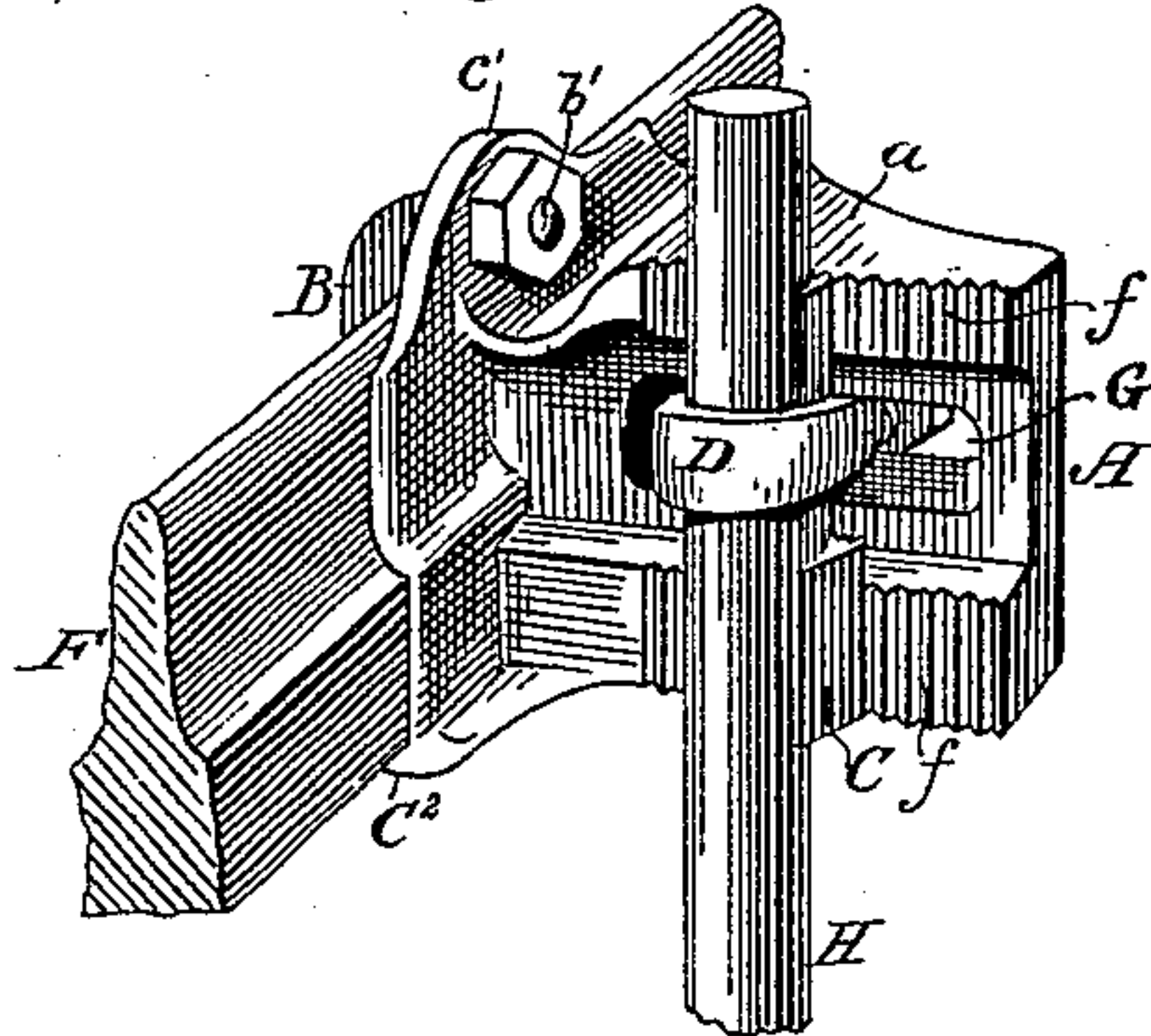


Fig. 3.

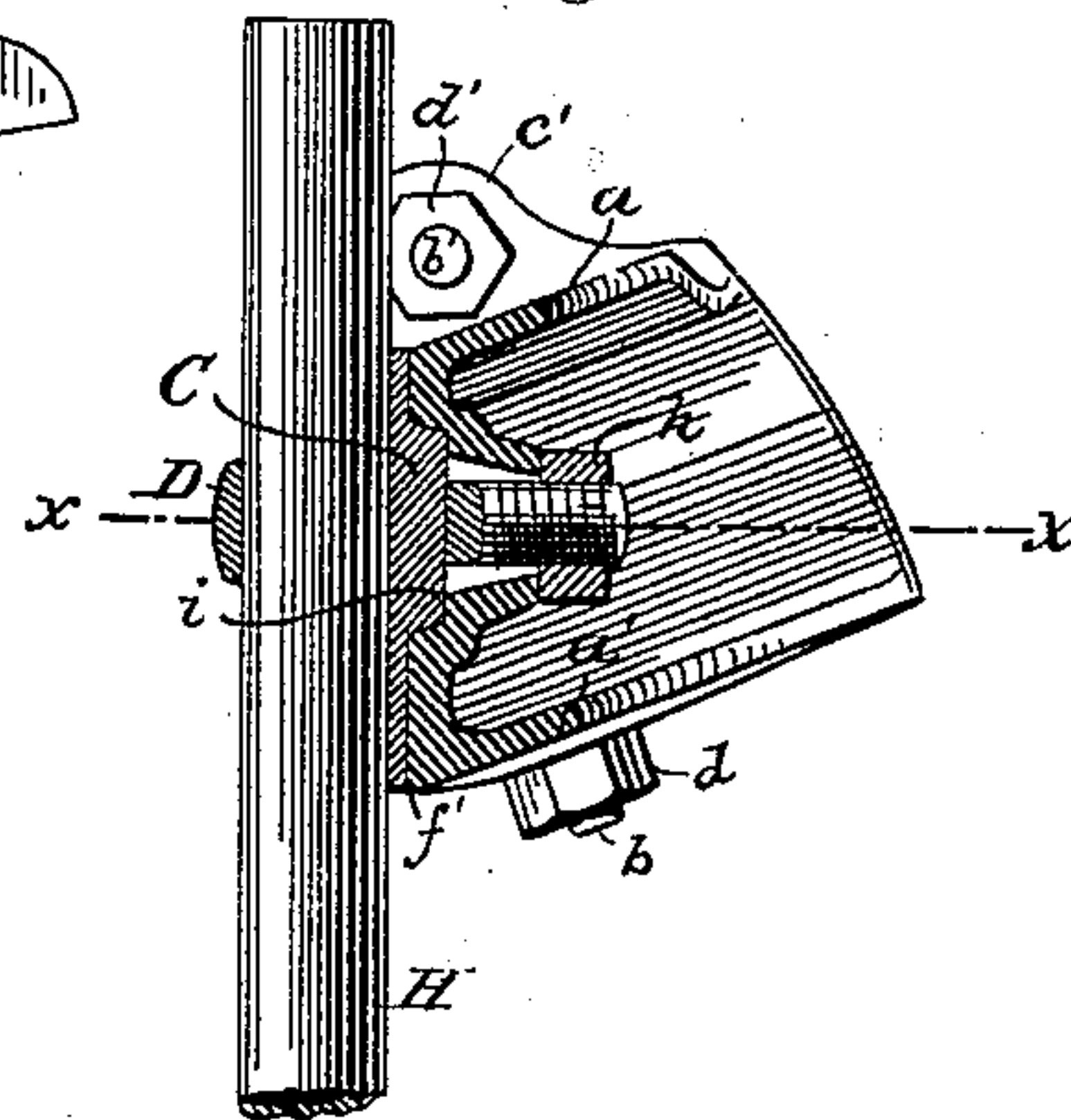


Fig. 4.

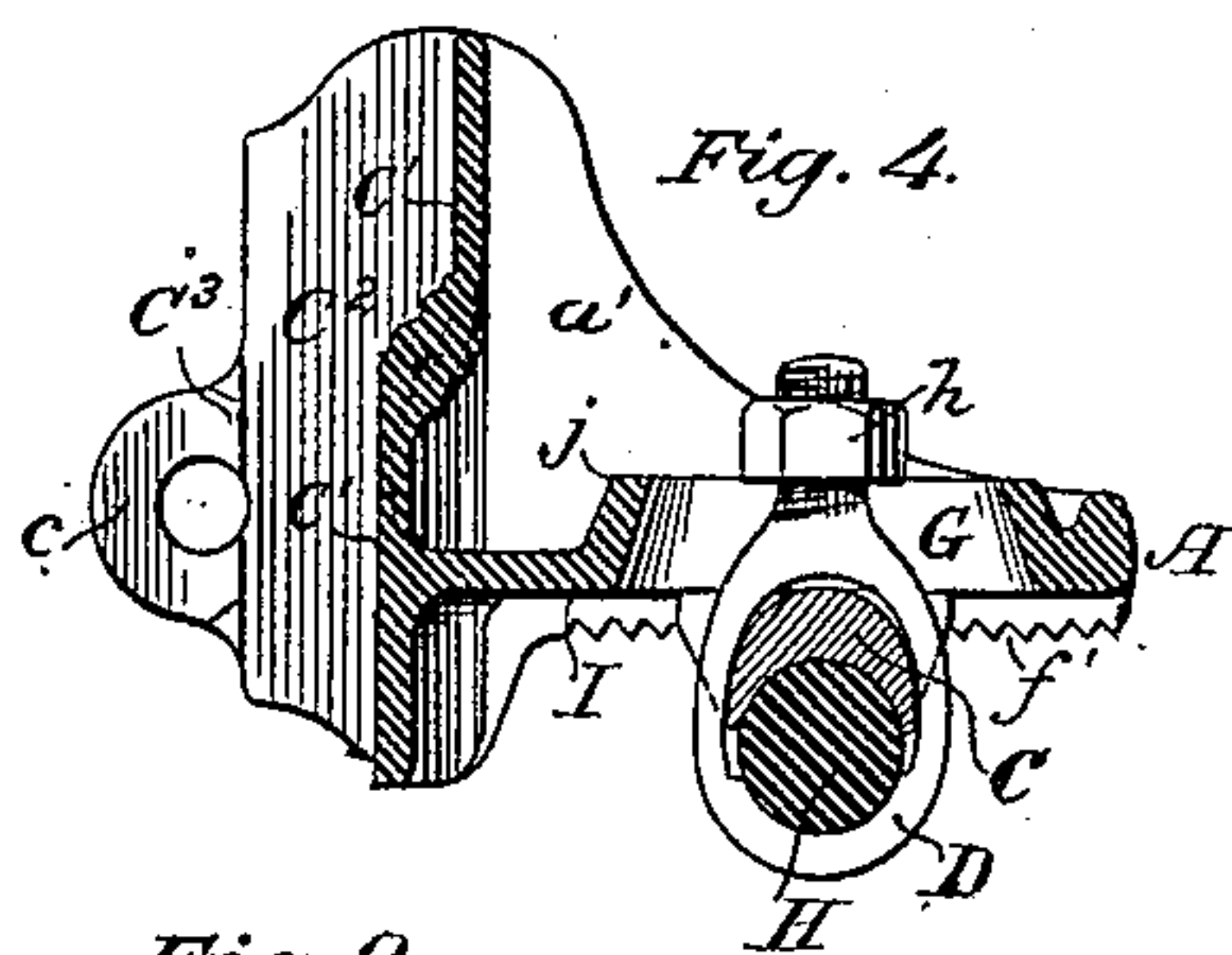


Fig. 5.

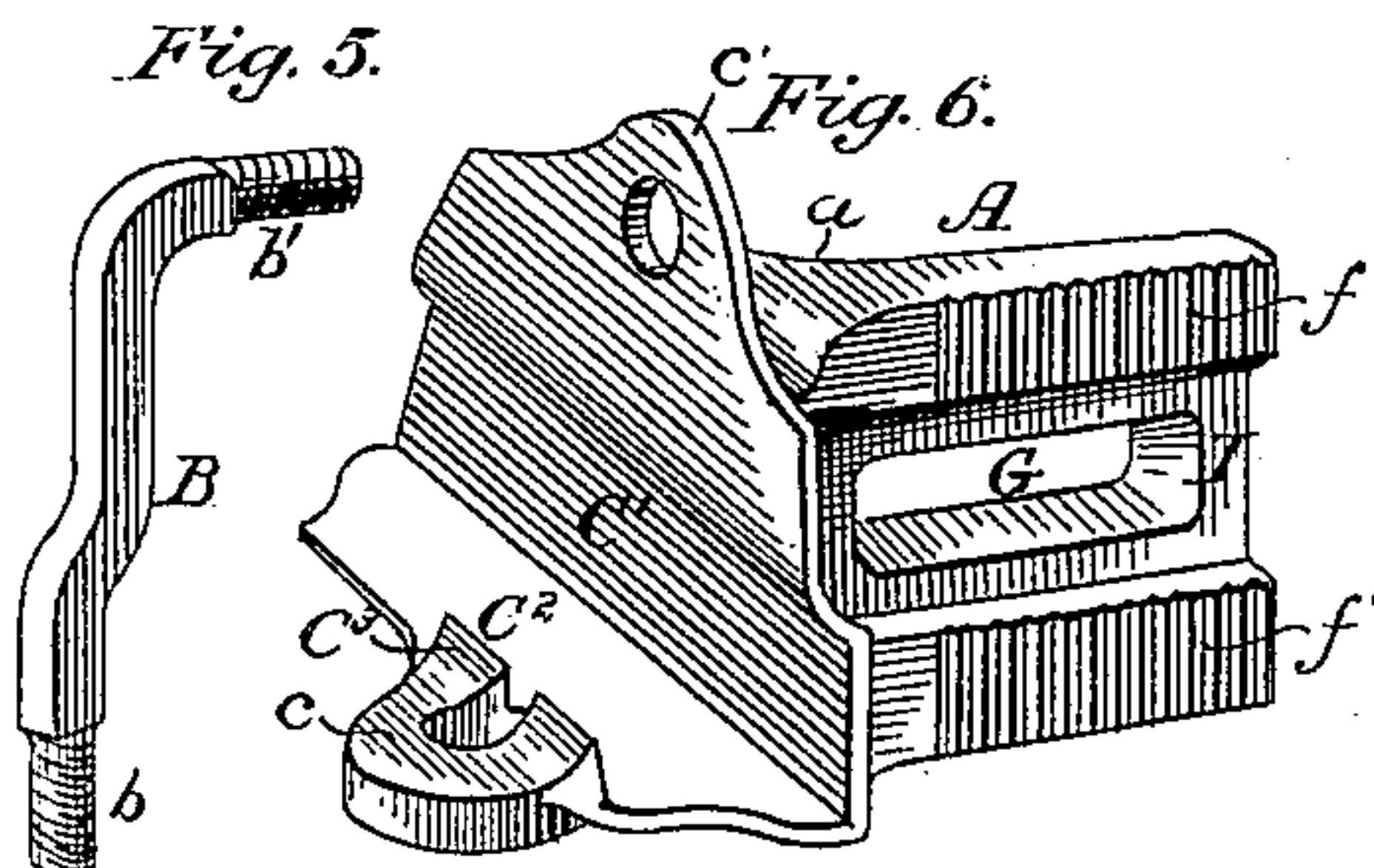


Fig. 6.

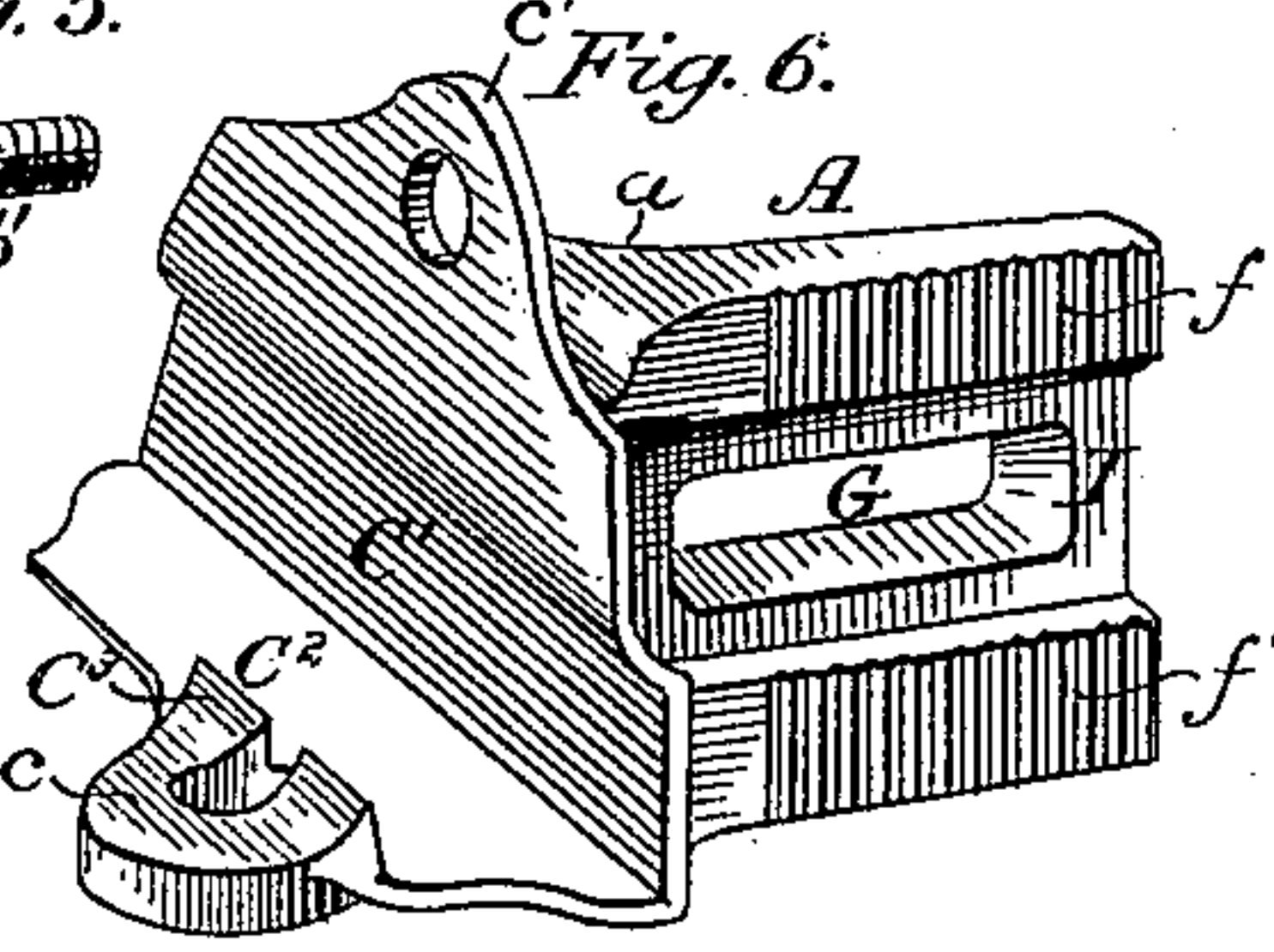


Fig. 7.

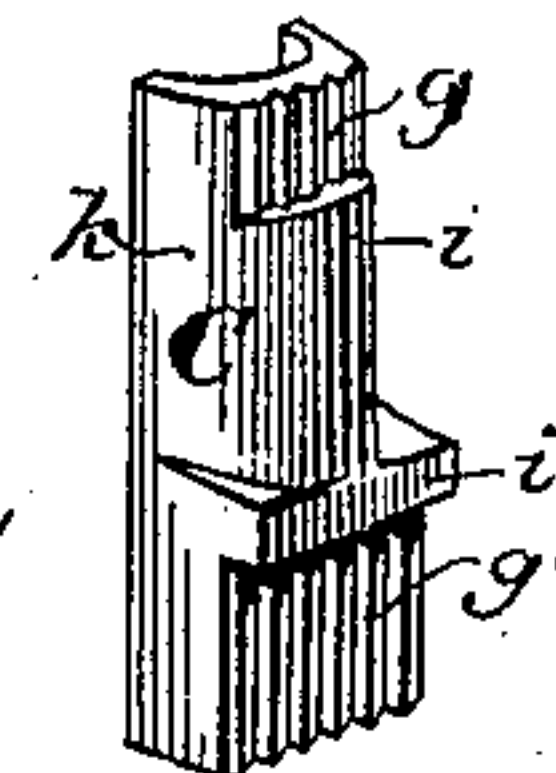
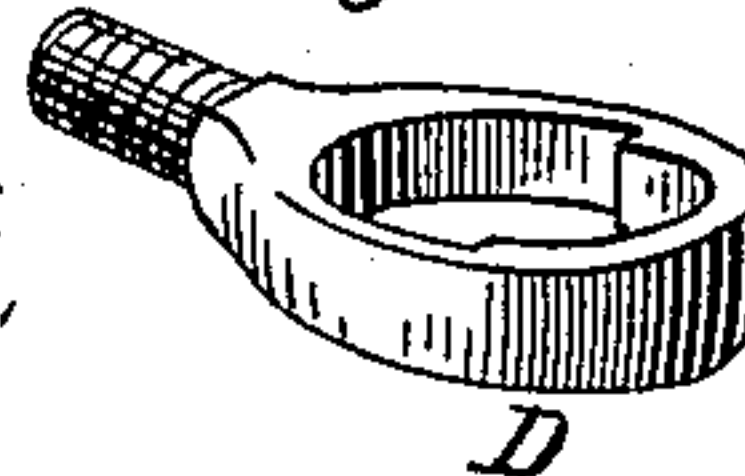


Fig. 8.



Witnesses:

A. B. Smith
J. C. Turner

Inventor:

H. H. Sater
By his atty
C. Clarence Poole

UNITED STATES PATENT OFFICE.

HANS H. SATER, OF DUBUQUE, IOWA.

DEVICE FOR ATTACHING ROLLER-COLTERS TO PLOWS.

SPECIFICATION forming part of Letters Patent No. 252,902, dated January 31, 1882.

Application filed September 19, 1881. (No model.)

To all whom it may concern:

Be it known that I, HANS H. SATER, a citizen of the United States, residing at Dubuque, in the county of Dubuque, State of Iowa, have
5 invented a new and useful Device for Attaching Roller-Colters to Plows, of which the following is a specification.

The object of this invention is to provide a simple and efficient device for attaching roller
10 or other colters to plows, so as to allow a lateral adjustment of the colter, a longitudinal adjustment of the same upon the plow-beam, and a vertical adjustment to raise or lower the colter; and it consists in the particular de-
15 vices hereinafter described for attaching the colter to and adjusting it upon the plow-beam.

In the drawings, Figure 1 is a perspective view of plow, showing colter attached; Fig. 2, a perspective view of the attaching device in
20 position upon the plow-beam; Fig. 3, a vertical transverse section through supporting-arm; Fig. 4, a horizontal section in line *xx* of Fig. 3; Figs. 5, 6, 7, and 8, detail views of supporting-arm and connections.

25 In the drawings is shown a rolled-steel beam, as indicated at F, though the devices hereinafter described can be adapted to a plow-beam of any form or material.

To the beam F is attached the arm or bracket
30 A, which supports the colter, and is so connected to the beam as to allow an adjustment longitudinally upon it. The end of the arm A that is in contact with the beam F is formed to fit upon and partially embrace it, having a
35 broad bearing face, C', shaped to correspond with the form of one side of the beam, and a lower projection, C², extending beneath the beam and slightly up on the other side in a rib, C³. The projection C² extends beyond the
40 beam and forms the lug *c*, through which passes the lower vertical end, *b*, of the strap-bolt B. The strap-bolt B is bent to conform to the shape of the side of the beam against which it bears, and its upper end, *b'*, is bent at right angles
45 and passes longitudinally through the lug *c'* upon the arm A, which projects above the top edge of the beam. The threaded ends *b b'* of the strap-bolt B are secured by nuts *d d'*, which, when tightened against the lugs *c c'*,
50 clamp the arm A firmly to the beam. The arm A is readily adjusted upon the beam by loosen-

ing the nuts *d d'* and sliding the arm to the required position, where it is again clamped. In the arm A is a longitudinal slot, G, and its face is provided with vertical serrations *ff'*. 55

The cylindrical colter-stem H rests in a concave seat, C, which has upon its rear surface serrations *g g'*, corresponding with serrations *ff'* on arm A. The colter-stem and its seat are encircled by an eyebolt, D, the shank of
60 which passes through the slot G, and by a nut, *h*, which bears against the back of the arm A, are clamped against the face of the arm A, the serrations *ff'* and *g g'* interlocking and preventing any side movement of the colter. 65
The colter can be readily adjusted laterally, or nearer to or farther from the beam, by loosening the nut *h* until the serrations are disengaged, and sliding the eyebolt, with the seat and colter, to the desired position upon the arm. 70

In the face of the arm A is a recess or sunken portion, I, and upon the rear of C a projecting portion, *i*, of corresponding depth, so that when the parts are clamped together the projection *i* comes to a bearing upon the face of
75 the recess I. This serves to give a firmer bearing to the seat, and the projection *i*, resting upon the projecting lower edge of the recess I, prevents the seat from falling out of place when the eyebolt is loosened for the purpose of ad-
80 justing the colter. The concave seat C embraces about one-half of the colter-stem, and its upper portion, *k*, is made smaller and rounded, so that the eye of the bolt D can be passed over the colter-stem and the end of the seat
85 to its place. The colter-stem is held in its place in its seat by friction only, and the colter can readily be adjusted vertically by loosening the nut upon the eyebolt slightly and sliding
90 the colter-stem up or down in the seat C.

The arm A is preferably made of malleable iron, and has deep flanges *a a'* extending backward to the bearing-face C', so as to give the requisite strength to counteract the transverse strain upon the arm. The bearing-face C' ex-
95 tends backward along the beam from the points of attachment of the strap-bolt, so as to give an extended bearing upon the side of the beam and lessen the strain upon the strap-bolt B. A raised rim or flange, *j*, extends around
100 the slot G on the rear face of A, to allow a convenient length to the stem of the eyebolt D.

The peculiar form of the arm A allows a very light casting, which at the same time has abundant strength to withstand any strain that may come upon it.

5 I claim—

1. The arm or bracket A, provided with serrations *ff'*, recess I, and slot G, in combination with the colter-stem B, eyebolt D, and seat C, having serrations *gg'* and shoulder *i*, where-
10 by said seat C is prevented from dropping down when the bolt D is loosened, substantially as shown and described.

2. The plow-beam F, combined with an arm

or bracket, A, provided with the extended bearing-face *C'*, projection *C²*, with rib *C³*, and the
15 flanges *a* and *a'*, substantially as shown and described.

3. The plow-beam F, combined with an arm or bracket, A, having the bearing-face *C'*, projection *C²*, and lugs *a* and *a'*, in combination
20 with the strap-bolt B, substantially as shown and described.

H. H. SATER.

Witnesses:

WM. O. TIBBALS,

WILLIAM DYER.