

(No Model.)

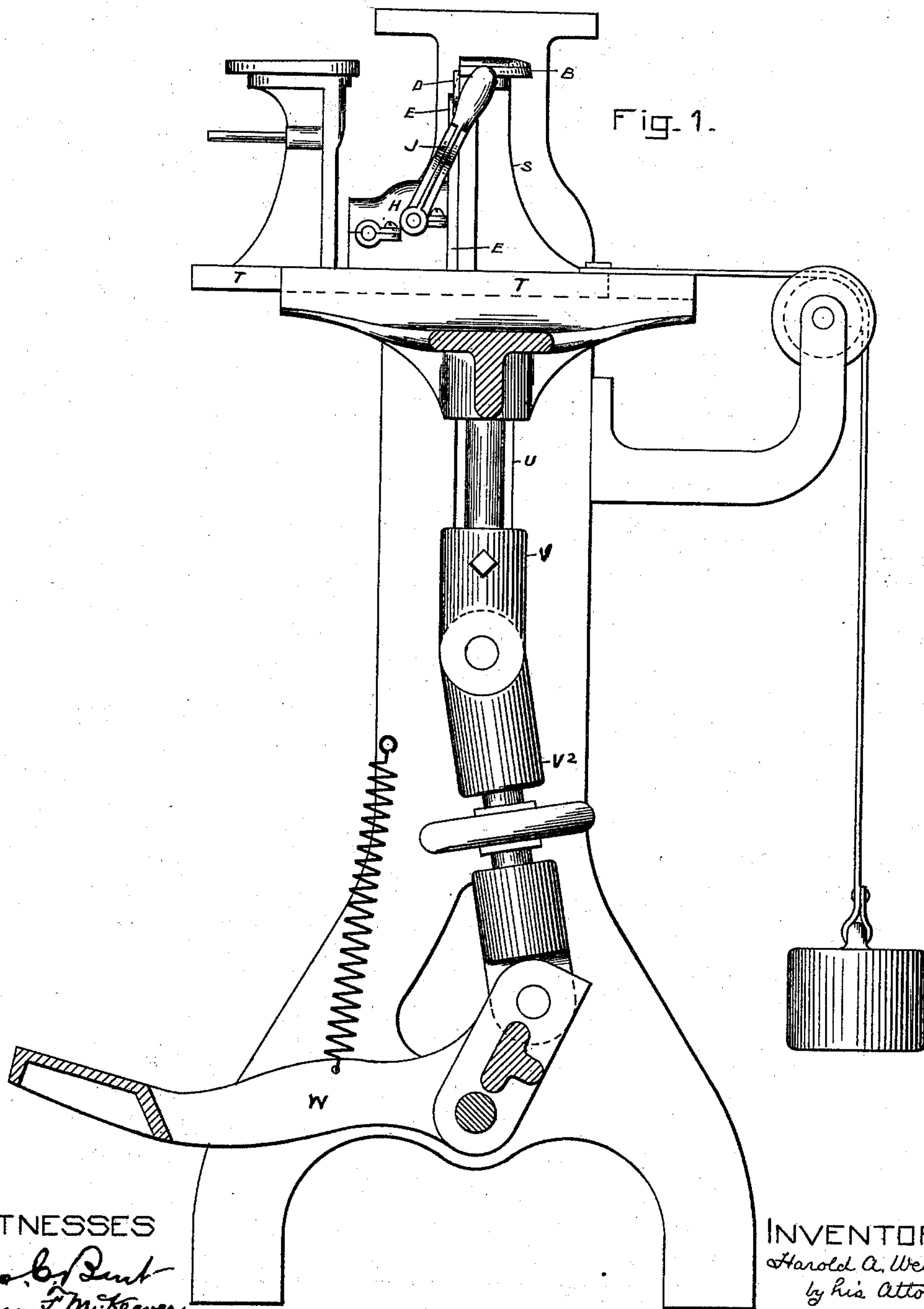
5 Sheets—Sheet 1.

H. A. WEBSTER.

MACHINE FOR BREASTING HEELS OF BOOTS OR SHOES.

No. 504,854.

Patented Sept. 12, 1893.



(No Model.)

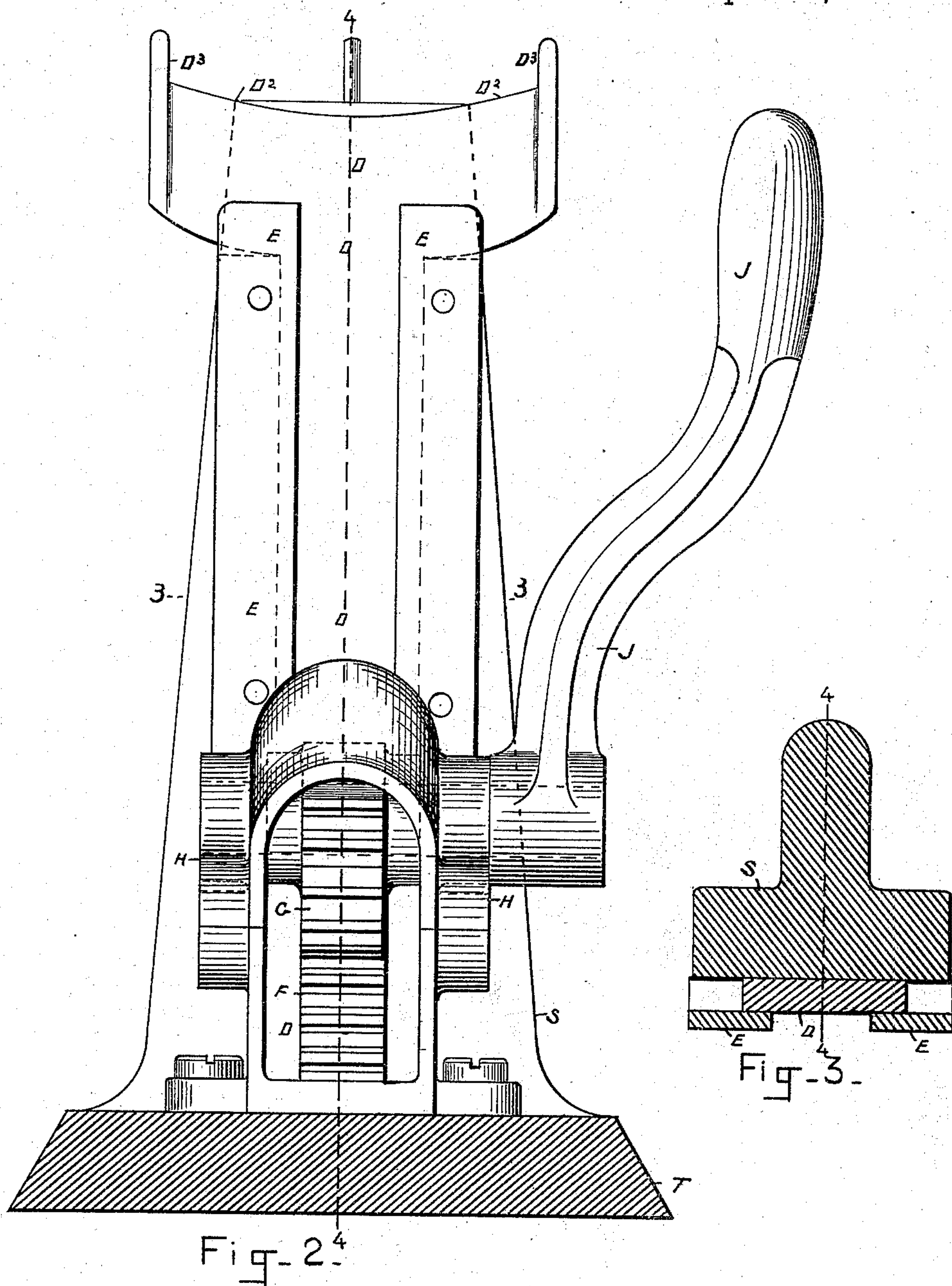
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Patented Sept. 12, 1893.



WITNESSES:

Geo. C. Dent
Henry F. McKeever

INVENTOR:

Harold A. Webster
by his Attorneys
Brown Bros.

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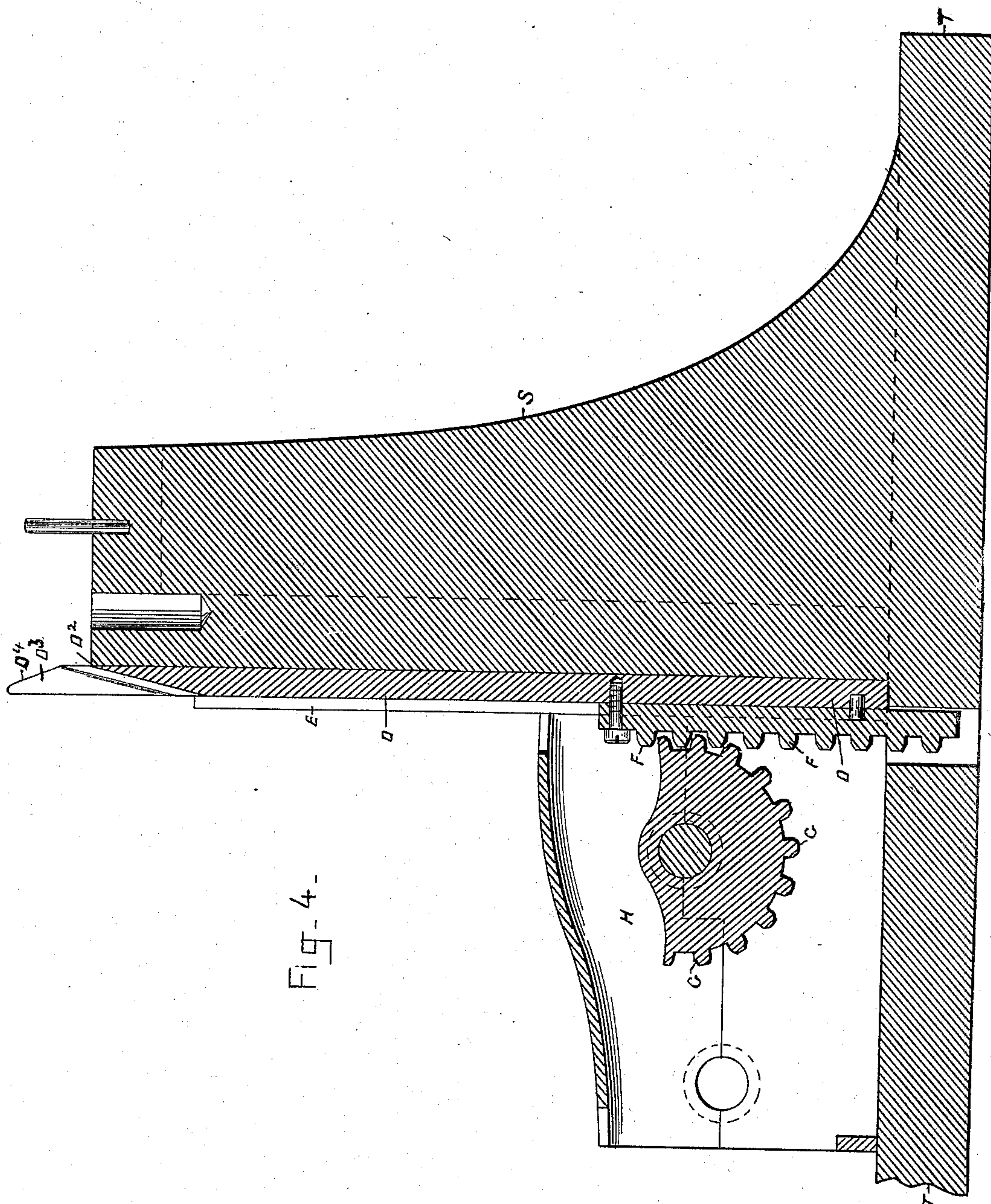


Fig. 4-

WITNESSES:

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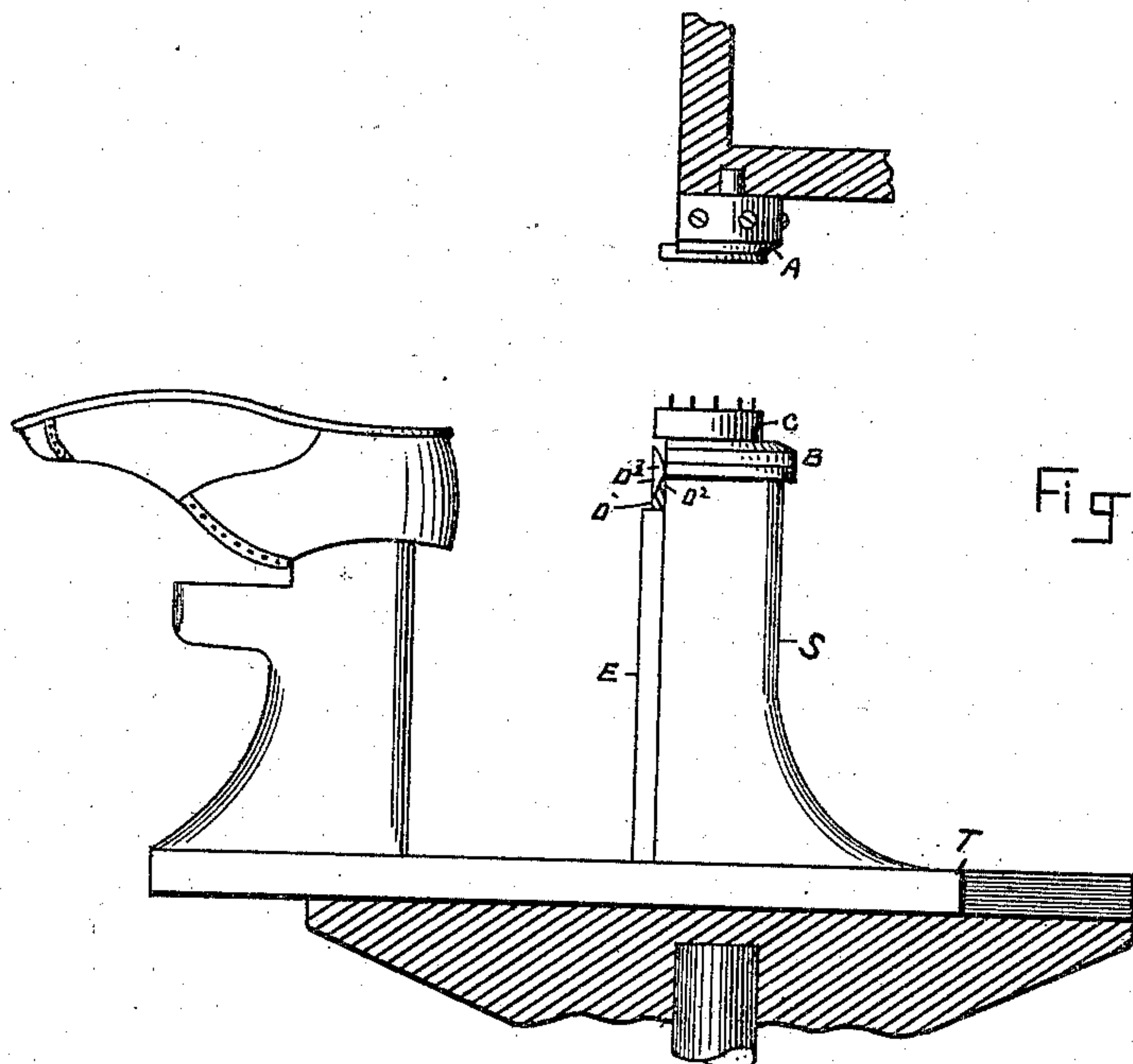


Fig. 5.

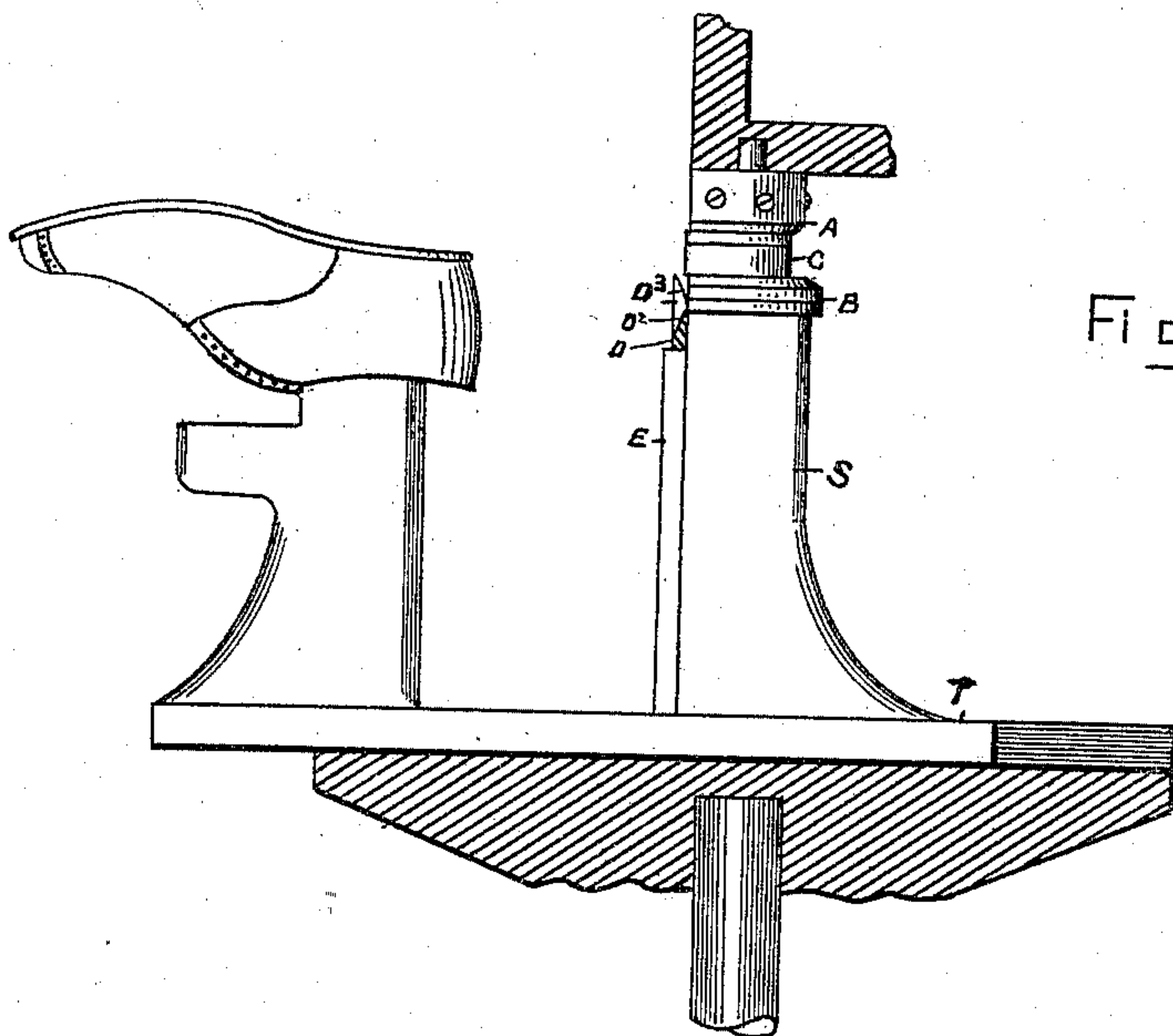


Fig. 6.

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(No Model.)

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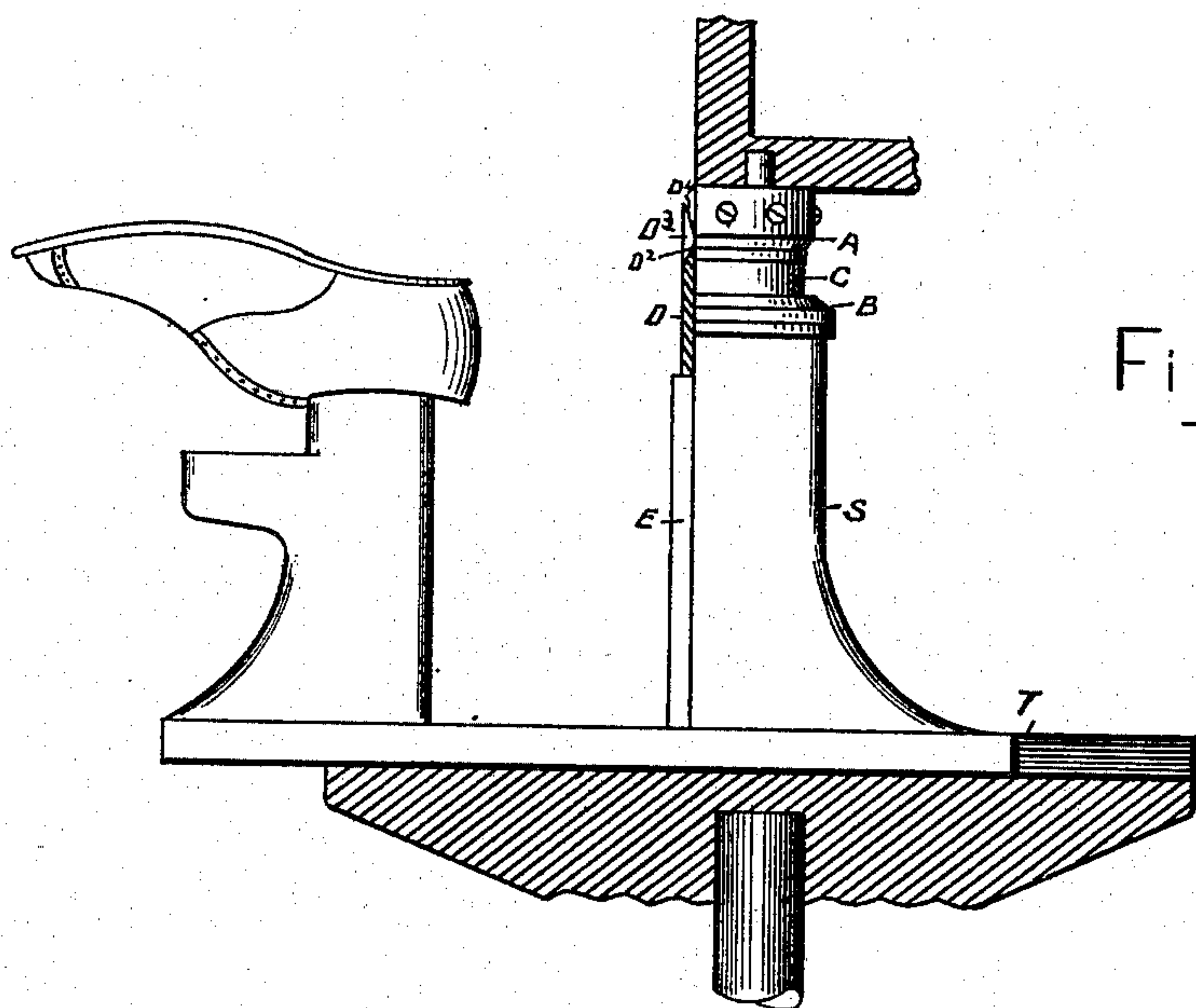


Fig. 7.

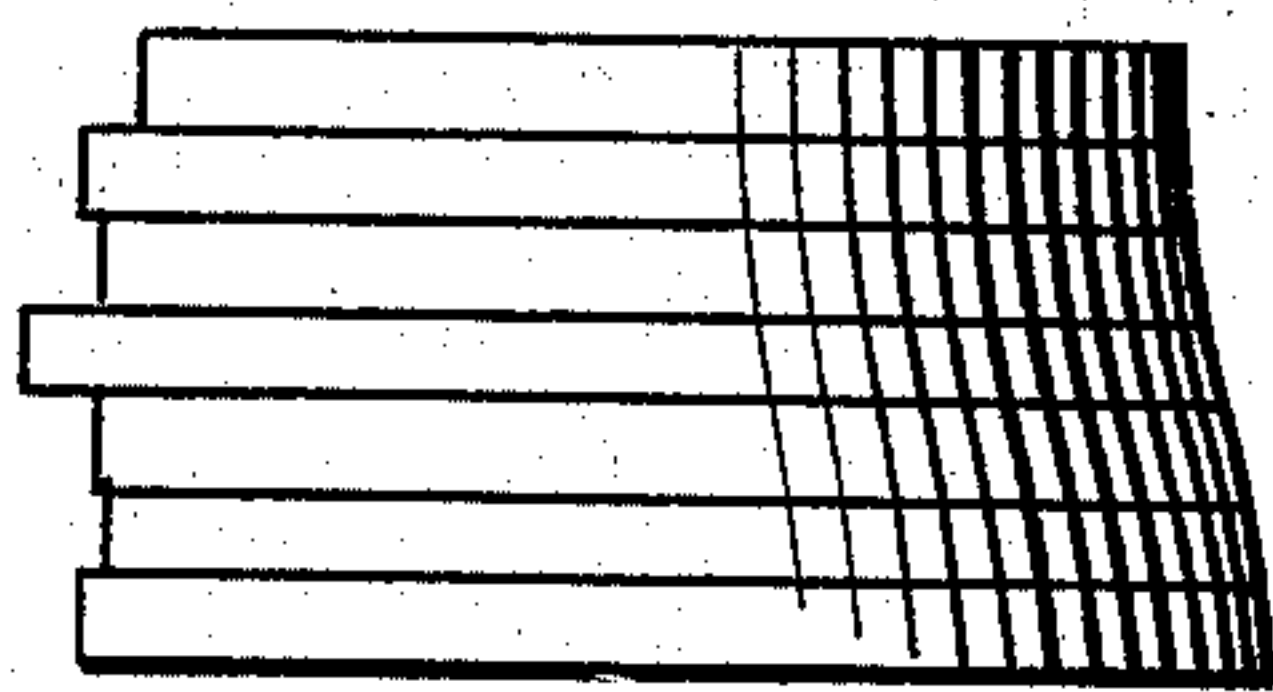


Fig. 8.

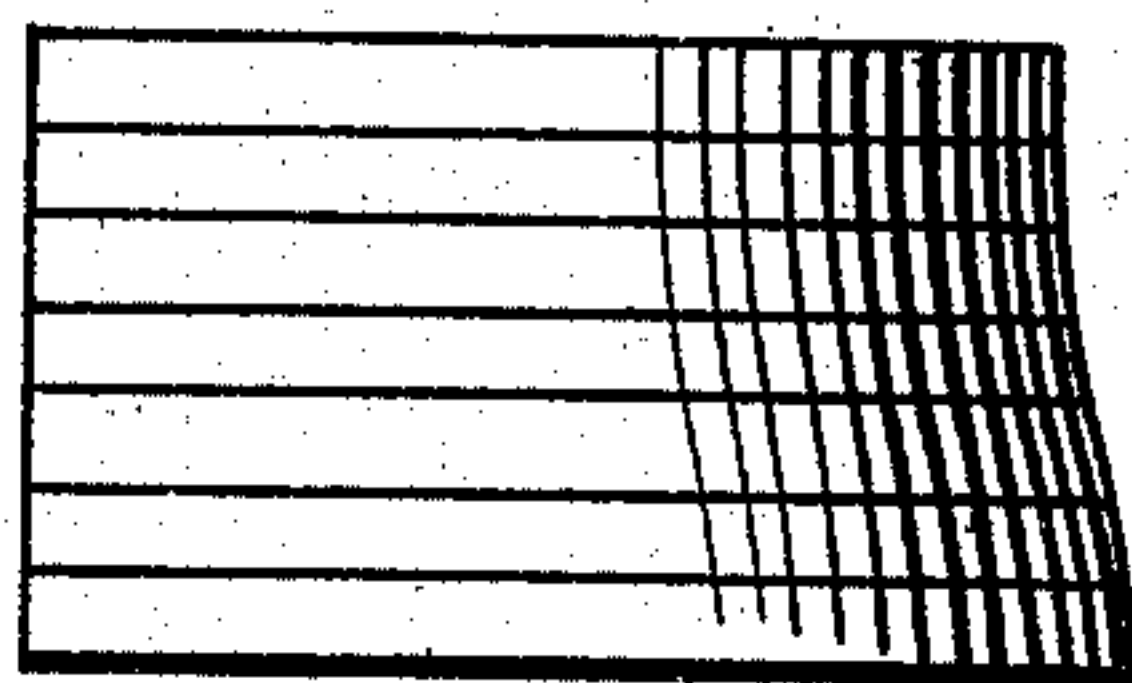


Fig. 9.

WITNESSES:

Geo. C. Dent
Henry F. McKeever.

INVENTOR:

Harold A. Webster
by his Attorneys
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UNITED STATES PATENT OFFICE.

HAROLD A. WEBSTER, OF HAVERHILL, MASSACHUSETTS.

MACHINE FOR BREASTING HEELS OF BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 504,854, dated September 12, 1893.

Application filed January 30, 1889. Serial No. 298,096. (No model.)

To all whom it may concern:

Be it known that I, HAROLD A. WEBSTER, a citizen of the United States of America, and a resident of the city of Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Machines for Breastng Boot or Shoe Heels, of which the following is a full, clear, and exact description.

10 This invention relates to the breasting, that is to the trimming the breast or front face of boot or shoe heels and particularly to mechanism therefor.

Under this invention heels are breasted before being attached to the boot or shoe and after having been charged with nails and the top-lift attached.

20 The improvements of this invention are particularly applicable to the machine for attaching heels to boots or shoes constituting the application for Letters Patent of the United States, Serial No. 264,538.

25 This invention, in substance, consists in the combination with upper and lower horizontal blocks of the outline of a boot or shoe heel and adapted to confine a heel between them, and to be moved toward and away from each other all substantially as described in the application before said, of a vertical bar having
30 a horizontal cutting edge at its upper end and arranged to move up and down in suitable stationary guide-ways and its cutting edge to pass by and beyond the opposite faces and across the front face or breast of the heel confined between the heel-blocks and mechanism
35 consisting essentially of a vertical toothed rack attached to said cutting bar and a vertical pinion gear-wheel which is journaled in suitable fixed supports and meshes said rack and has a winch, or other handle, for turning
40 it, all so that turning the gear-wheel in one direction the cutter-bar will be raised and its cutting-edge made to pass across the breast or front face and for the entire thickness of the
45 heel and thus the heel breasted.

In the drawings, forming part of this specification, Figure 1 is a side elevation of the machine of the application aforesaid and having the breasting mechanism of this invention.
50 Fig. 2 is an enlarged face view of the cutter-bar and its operating mechanism. Fig. 3 is a horizontal section, line 3—3, Fig. 2. Fig. 4 is

a vertical section, line 4—4, Fig. 2. Figs. 5, 6, and 7 are side views illustrating the positions of the heel holding blocks and breasting
55 knife at different stages in the operation of the machine. Fig. 8 is an edge view of a heel before and Fig. 9 is an edge view of a heel after it is breasted.

In the drawings, A and B represent the upper and lower holding blocks or anvils both
60 suitably adapted to receive and confine a heel C between them. The upper block A is held on a suitable stationary support, and the lower block B is held on a post S carried by a
65 horizontal platen T, arranged to move up and down on vertical guide-ways U, (one only shown)—and to be operated by a toggle lever V, V² having the upper arm V attached to
70 the platen T and the lower arm V² adapted to be operated by a treadle-lever W, and otherwise all as described in the application aforesaid. Depressing the treadle W, raises the
75 lower block B toward the upper block A and with a heel between the two, the heel is thereby confined and held between its opposite faces. The blocks A, B of themselves form
no part of this invention.

D is a vertical knife or cutter-bar, arranged to move up and down in stationary vertical
80 guide-ways E, E, and in front of and in line with the front face or breast of the heel-blocks A, B.

D² is a concave cutting edge across the upper end of the cutter-bar D. This cutting
85 edge D², in the normal position of the cutter-bar is below the holding face of the lower heel-block B and in line with the breast or front face of that block and the upper block A.

F is a vertical toothed rack of the cutter-
90 bar and G is a vertical sector gear-wheel engaging the rack-bar and journaled in suitably stationary supports H, located on its opposite sides.

J is a winch handle attached to the sector
95 gear C for convenience in turning it. By turning the sector gear C in one direction the cutter-bar is raised and thus its cutting edge is made to trim or breast the front of the heel confined between the heel-blocks A, B and in
100 the turning of the sector gear in the other direction the cutter-bar is returned to its normal position.

In the operation of the mechanism described

in connection with the operation otherwise of the heel-blocks A, B, to attach a top-lift to a heel, as in the machine referred to, obviously the heel is breasted preparatory to being at-
 5 tached to the boot or shoe.

The cutting edge D² of the cutter-bar D, at its opposite ends, has a vertically extending prong D³, with a vertically running beveling edge D⁴ toward the cutting edge and in posi-
 10 tion to bear against the front face or breast of the upper heel-block, in the upward and downward movement of the cutter-bar, and thereby, in case said face of the block should project into the cutting plane of the cutter-bar
 15 to force said bar outward from and sufficiently for its cutting edge to clear the block.

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

20 1. The combination of the fixed heel-block A, the movable heel-block B, the post S supporting the block B and movable therewith, guides E E on said post, a cutter-bar D fitted to slide between said guides and having a
 25 cutting edge D², and mechanism consisting of a toothed rack bar F on the cutter-bar, and

a pinion G meshing with said rack-bar, jour-
 naled in bearings which are movable with
 said post S and block B, said pinion being
 adapted by its rotation to give the cutter-bar 30
 a movement additional to that of the block B, and thereby breast the heel which is com-
 pressed between said blocks, the plane of
 movement of the said cutting edge being one
 side of the face or breast of the fixed block 35
 substantially as described.

2. The combination of heel-blocks A, B adapted to receive and secure a heel between them, of a cutter-bar D having a cutting edge D² and upwardly extending prongs D³ at op-
 40 posite ends of said edge and mechanism to move it, and thus by the cutting edge of said bar to cut or trim the breast or front face of a heel confined between said blocks, substan-
 45 tially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

H. A. WEBSTER.

Witnesses:

ALBERT W. BROWN,
 EDWARD HAMILTON.