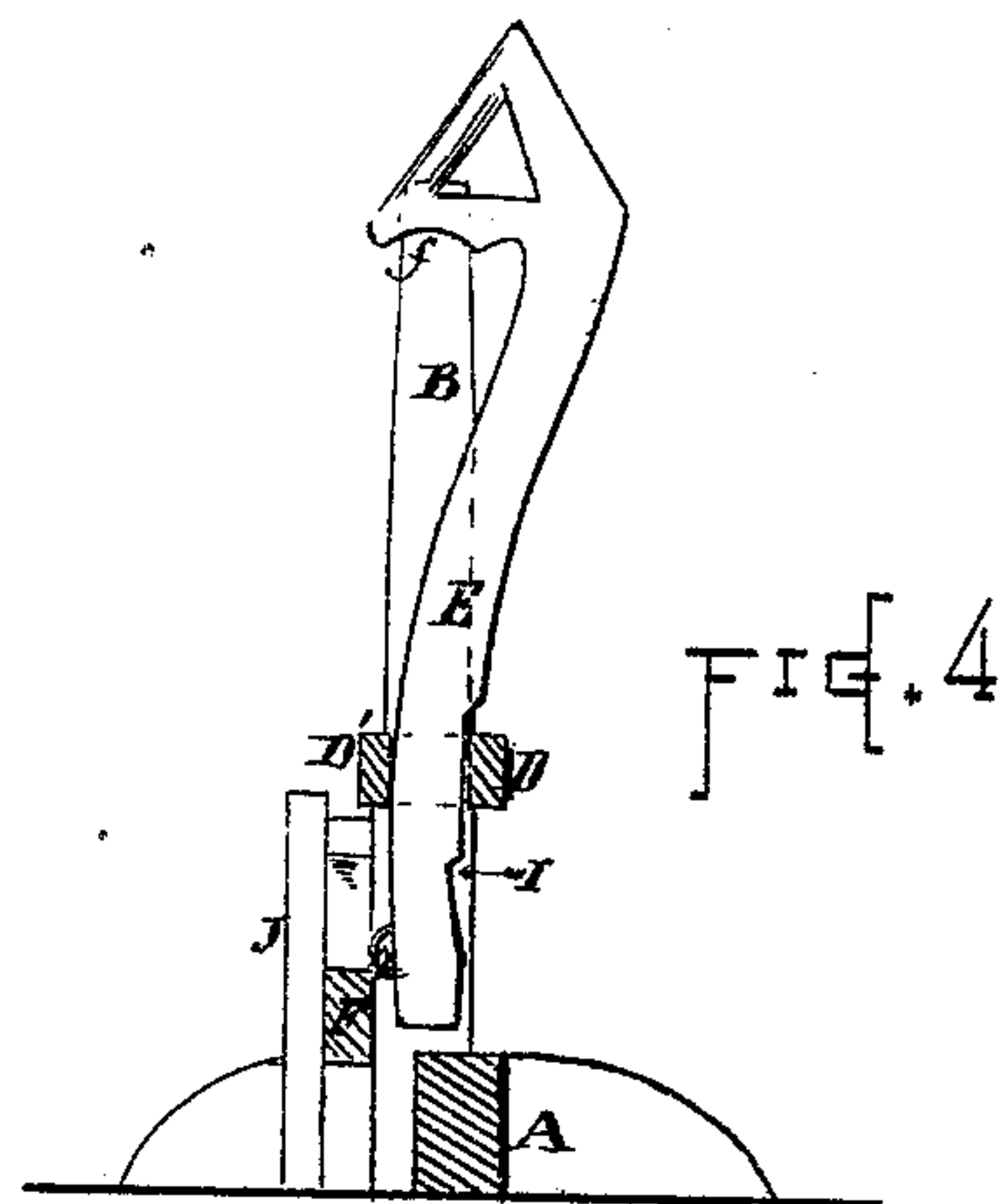
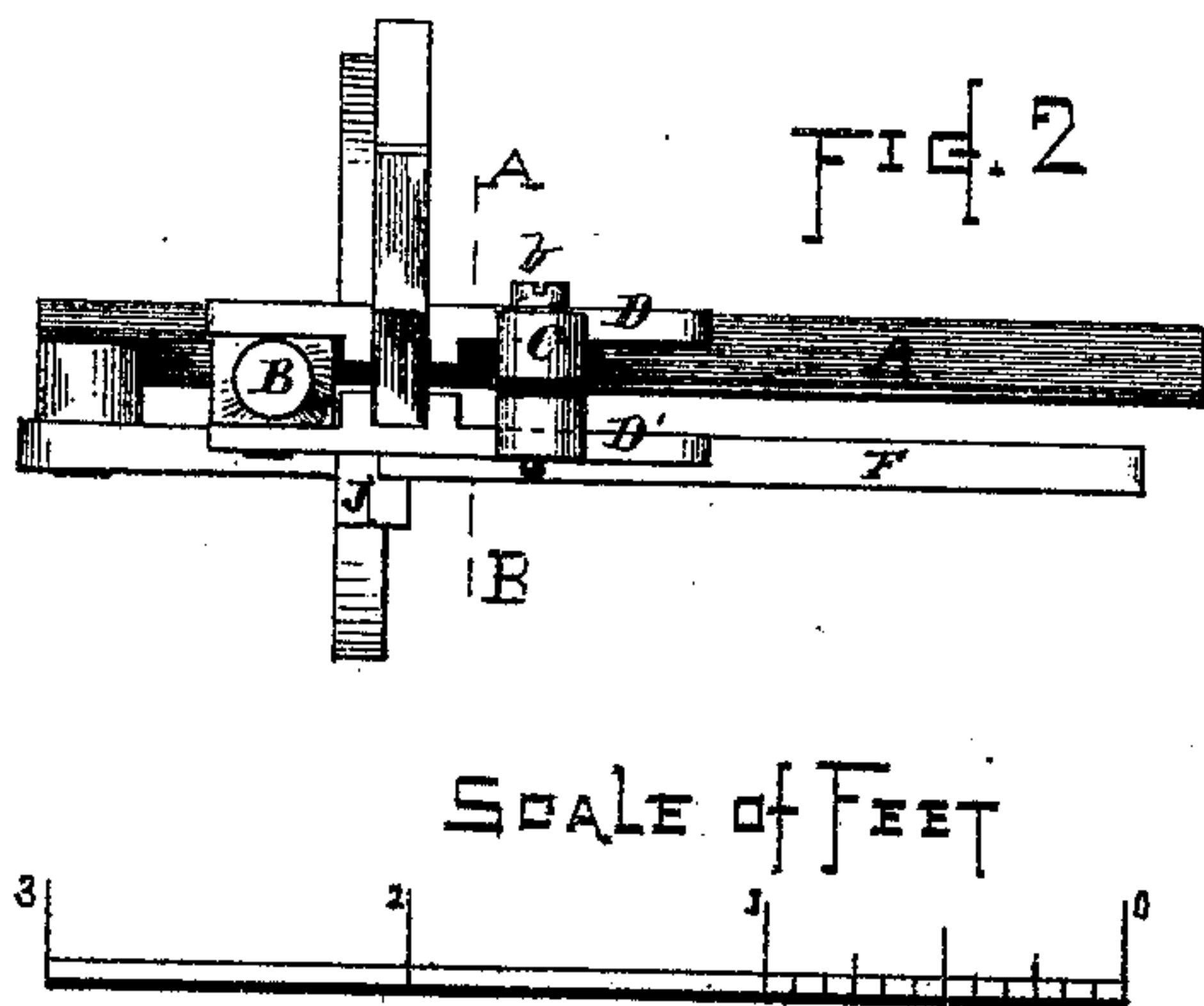
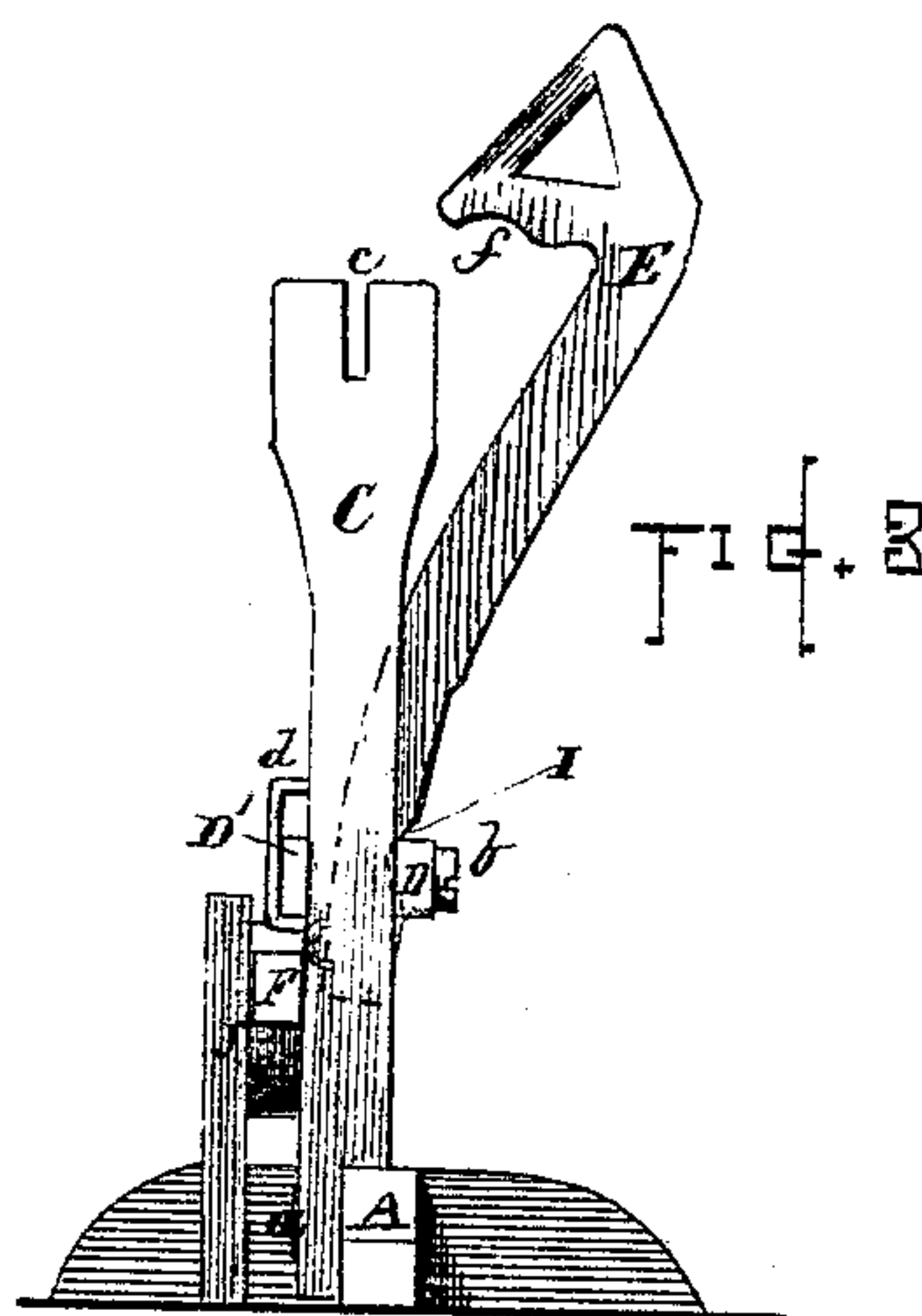
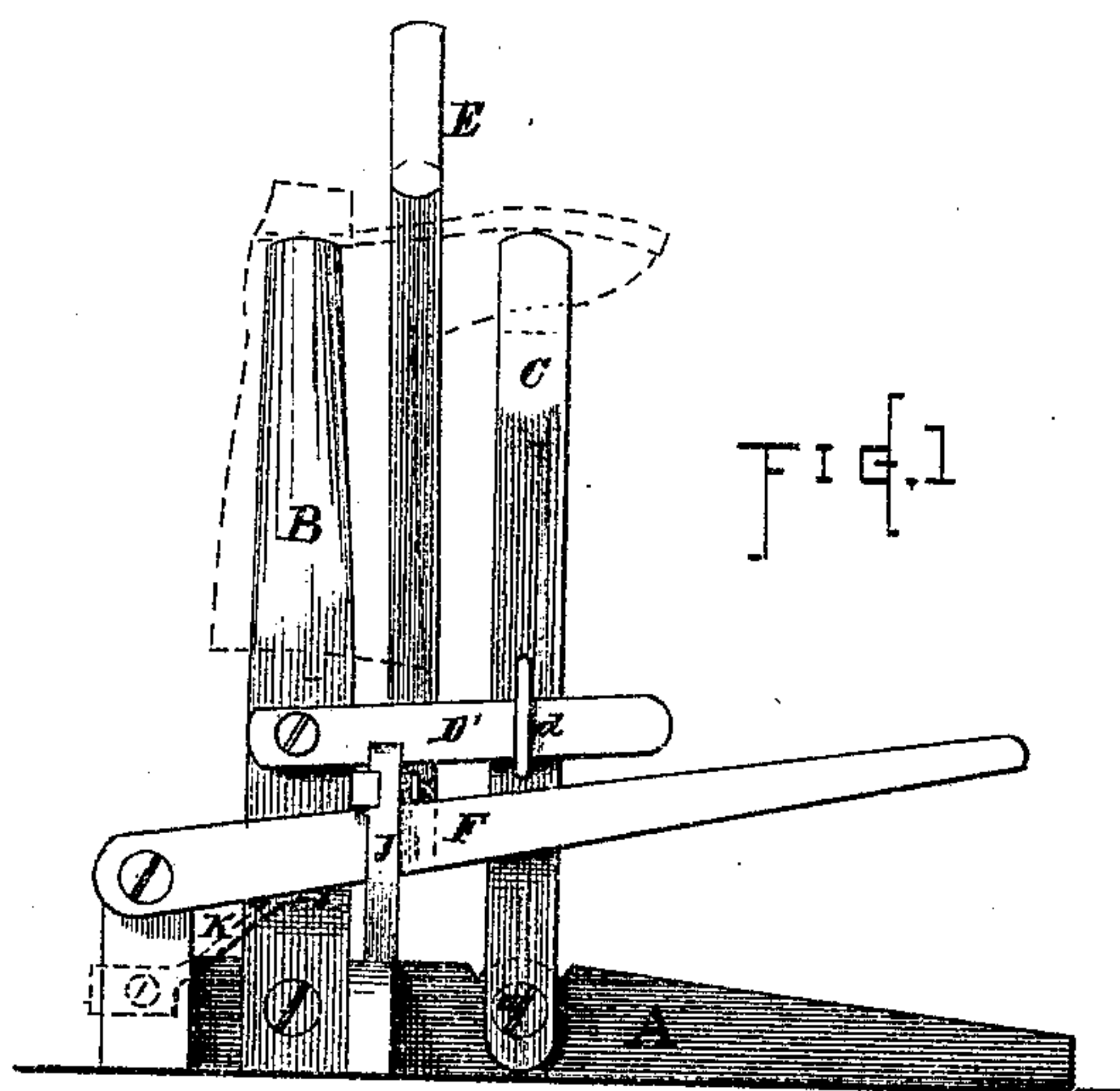


H. BARNES.

Machine for Bending the Shanks of Boots and Shoes.

No. 126,434.

Patented May 7, 1872.



Witnesses

Geo. S. Duell

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HORACE BARNES, OF BROOKFIELD, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR BENDING THE SHANKS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. 126,434, dated May 7, 1872.

To all whom it may concern:

Be it known that I, HORACE BARNES, of Brookfield, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Machine for Bending the Shanks of Boots and Shoes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing which forms a part of this specification, and in which—

Figure 1 represents a front view of my shank-bending machine. Fig. 2 represents a plan view of the same. Fig. 3 represents a side view of the same, and Fig. 4 represents a vertical section at line A B, Fig. 2.

The object of my invention is to produce a machine for bending the shanks of boots and shoes, whereby the operation can be quickly and conveniently performed, with less labor and in a more perfect manner than by the method heretofore practiced; which method consisted in placing a strap over the shank to be bent, and then, by taking the toe and heel of the boot in either hand and putting the foot through the strap, to draw upon the boot with sufficient force to bend the shank, which, in case of very heavy work, requires considerable strength, and is, with the lightest of work, quite laborious. Another method has been to bend the shanks across a stationary iron rod in place of the foot-strap. Both of these methods are laborious and defective, for it is difficult to grasp the heel of the boot with a sufficiently-strong hold without crushing in the counter, which at the time of bending is usually wet and not in condition to withstand rough usage; and, again, the shanks, not being supported on the interior of the boot, are liable to be pressed in by the giving way of the inner sole; or the pegging may give way at the sides of the shank from the unequal strain. As above stated, to overcome these objections is the object of my present invention; and to that end my invention consists in a shank-bending machine, the parts of which are constructed, combined, and operated substantially as hereinafter described.

In the drawing, the parts marked A represent the supporting-frame. B indicates the heel-post, which stands in an upright position and is rigidly secured to the supporting-frame

A. C indicates the toe-post, also arranged in an upright position, and secured to the supporting-frame by a joint-bolt, *a*, or hinge, so that its upper end can be adjusted further from or nearer to the top of the heel-post B, to suit the various sizes of boots and shoes to be operated upon. The top of the heel-post B is rounded off and its upper part made in cylindrical form so as to fit into the interior of the heel of the boots or shoes, and the top of the toe-post C is made in the form of a transverse half cylinder, with a slot, *c*, at its central part to receive the fold of the boot-upper when in use. Adjusting and holding bars or arms D D' are arranged across from the post B to the post C, as shown. These bars are firmly secured to the post B, and one of them, D, is secured to the post C by means of a clamping-screw, *b*, arranged through a longitudinal slot formed in said piece D, so that by loosening the screw *b* the post C can be adjusted to any desired position, and when so adjusted can be held by tightening up the screw *b*. The other piece D' may be passed through a guide, as shown at *d*, or, if preferred, it may be slotted and secured in a similar manner as the piece D. A bolt may be employed in lieu of the screw *b* to pass through the post C, and both of the slotted pieces D D' and the parts be clamped together by a nut on the end of said bolt. E indicates the bending-hook, the upper end of which is made in the form shown in Figs. 3 and 4. It is rounded out at *f* in such a manner that it will press upon the shanks near their outer edges and not in the center, so that there will be no danger of pressing in the shanks when they are bent down. The lower end of the hook E is linked or hinged to a foot-treadle, F, and suitable guiding-lugs are provided upon the inner sides of the bars D D', between which the lower part of the bending-hook E is supported. The lever or treadle F is fulcrumed to a projecting portion of the supporting-frame A, as fully indicated in the drawing. The rear side of the hook E is provided with a depression or notch, I, which allows the hook to swing back out of the way when it is in its elevated position, and which notch, in connection with the bar D, causes it to move forward and hook onto the boot-shank immediately as the treadle is depressed, and after hooking onto the shank the hook E has

a direct downward motion, owing to the straight portion on the hook just above the depression I. J indicates a guide for keeping the treadle F in position.

The boot is placed upon the upper ends of the posts B and C, in the position indicated by dotted lines, Fig. 1, and the operator places his foot upon the treadle F and bears down the hook E, which bends the shank to the proper distance. The operator can, if he desires, bend down the toe of the boot at the same time by pressing down upon it with his hands.

It will be observed that the shank is supported at the heel by the heel-post B and at its forward end by the toe-post C, while the hook E presses upon the sides of the shank. The parts being thus supported, there is no liability of pressing in the shanks, ripping out the pegging, or crushing the counters; while the power, being applied by means of a foot-treadle, and the boot resting on firm supports, renders the labor required for the operation very slight as compared with the old process heretofore practiced.

A spring may be arranged beneath the treadle F, as shown by dotted lines at K, Fig. 1, to support the treadle and hook E in an elevated position.

Having described my machine for bending shanks of boots and shoes, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

1. The combination, with the heel-post B and slotted toe-post C, of the shank-bending hook E, substantially as and for the purpose set forth.

2. The combination, with the adjustable toe-post C, of the adjusting and holding arms or bars D D', substantially as and for the purpose set forth.

3. The shank-bending hook E, provided with a notch or depression, I, in its rear side, in combination with the supporting bar D and treadle F, substantially as and for the purpose set forth.

4. A machine for bending or breaking down the shanks of boots and shoes, consisting of a heel-post, B, toe-post C, bending-hook E, holding and adjusting arms D D', and treadle F, said parts being constructed, combined, and operated substantially as shown and described.

HORACE BARNES.

Witnesses:

GEO. F. DUELL,
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