

(No Model.)

J. H. BUSELL.
HEEL BURNISHING TOOL.

No. 441,823.

Patented Dec. 2, 1890.

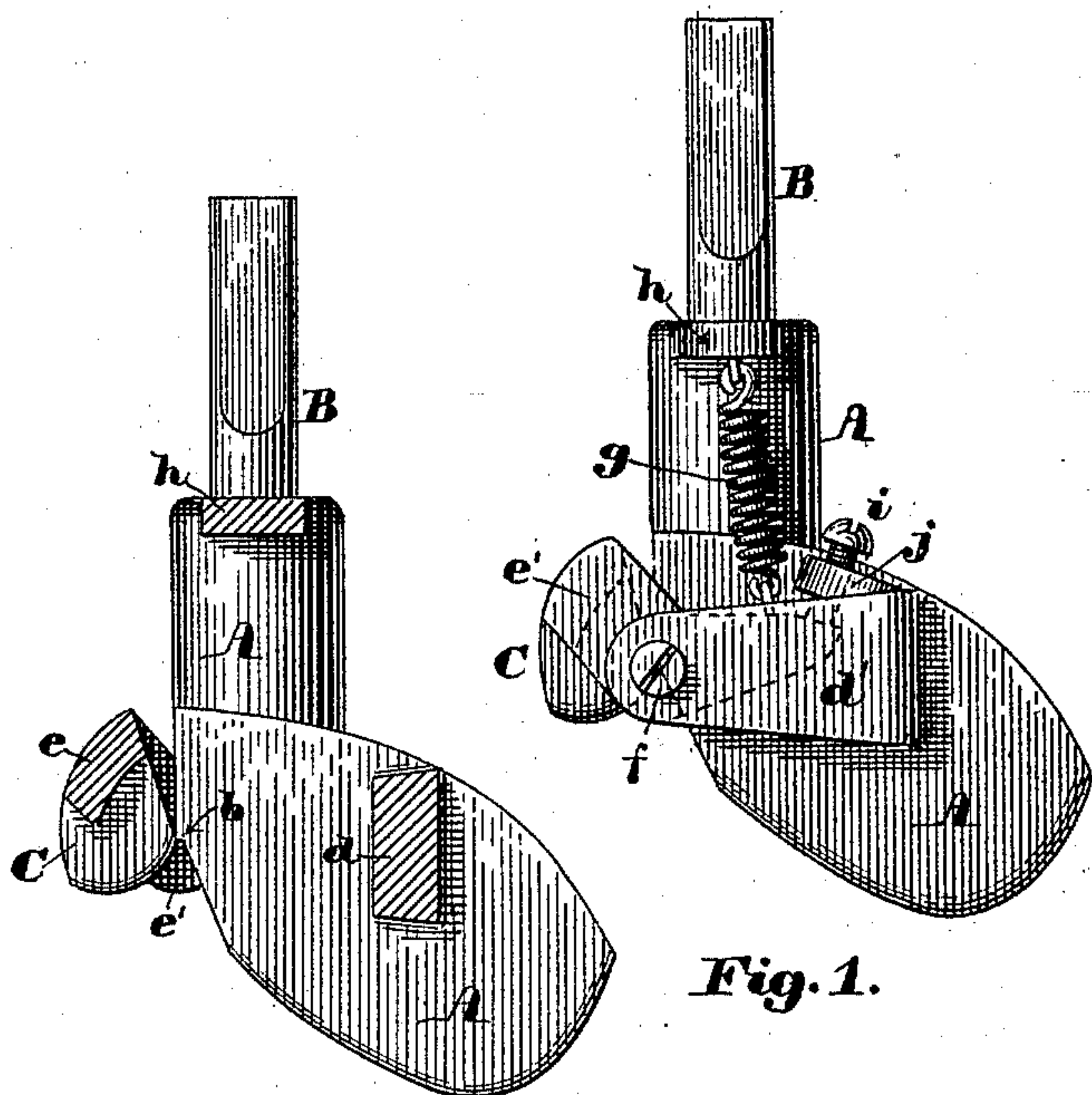


Fig. 3.

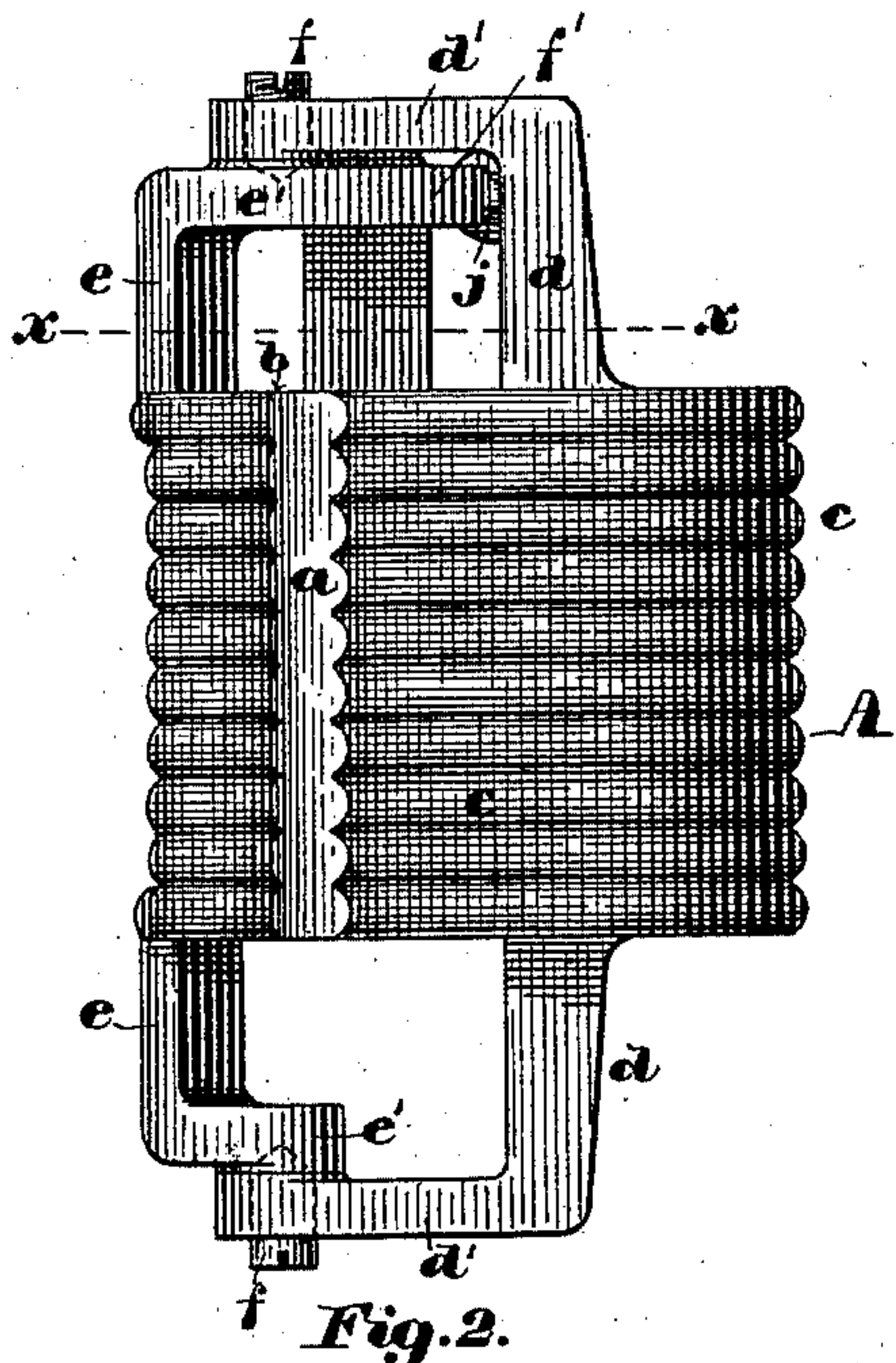


Fig. 2.

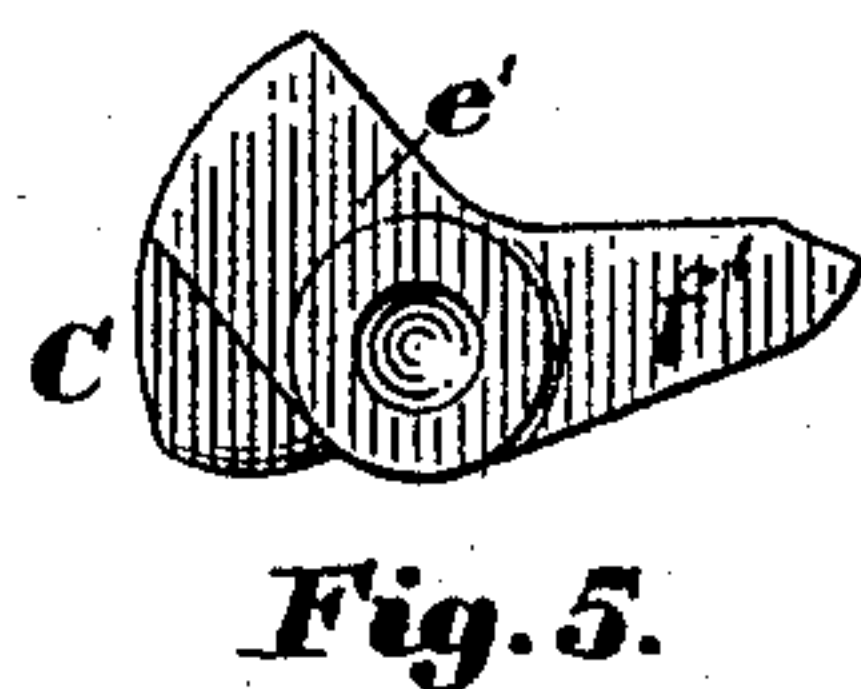


Fig. 5.

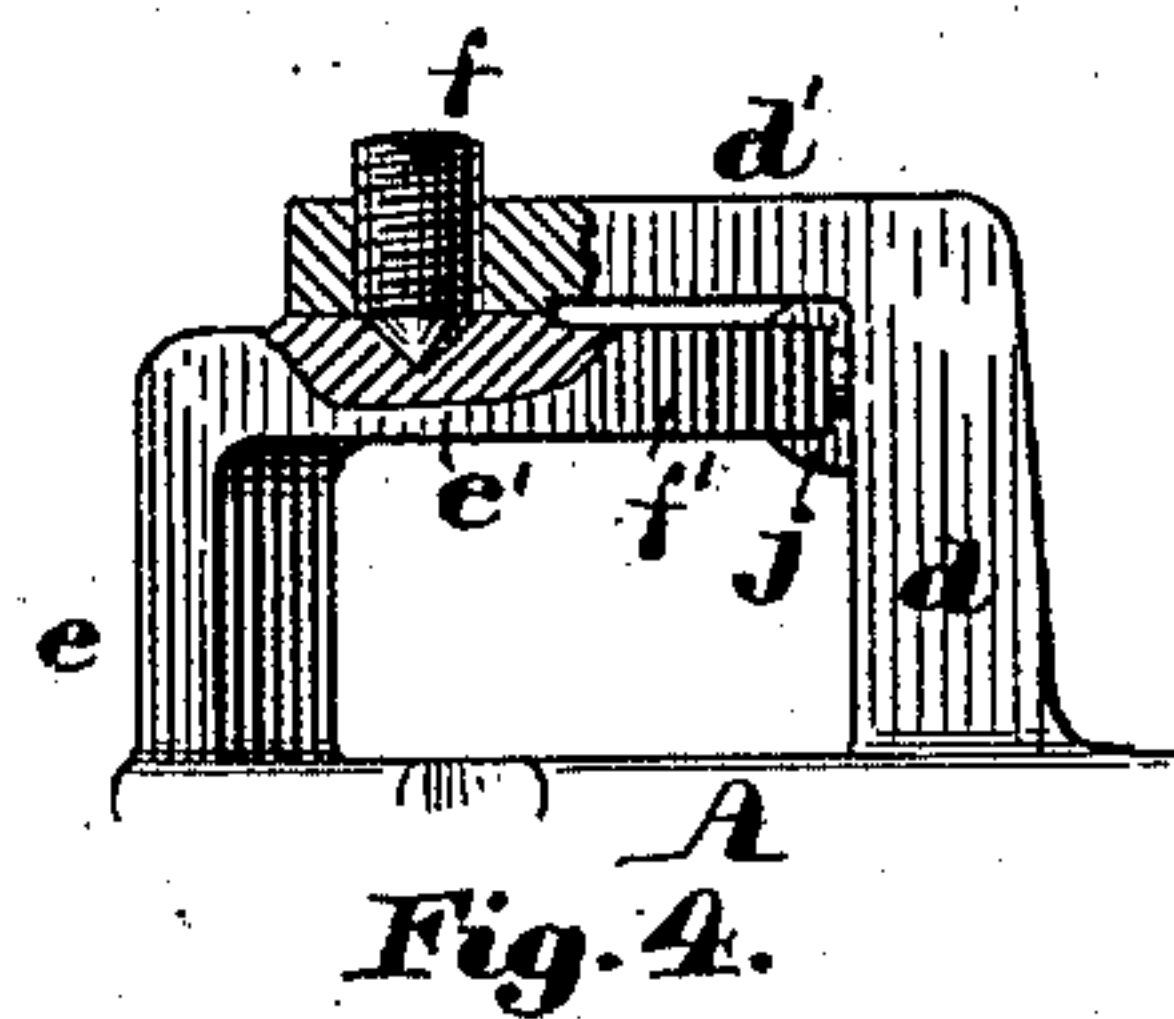


Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES H. BUSELL, OF BOSTON, MASSACHUSETTS.

HEEL-BURNISHING TOOL.

SPECIFICATION forming part of Letters Patent No. 441,823, dated December 2, 1890.

Application filed January 30, 1889. Serial No. 298,045. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. BUSELL, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Heel-Burnishing Tools, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to heel-burnishing tools, and is an improvement upon the invention described in Letters Patent No. 393,537, granted to me November 27, 1888; and it consists in certain novel features of construction, arrangement, and combination of parts, which will be readily understood by reference to the description of the drawings, and to the claims to be hereinafter given, and in which my invention is clearly pointed out.

Figure 1 of the drawings is a plan of my improved burnishing-tool. Fig. 2 is a front elevation. Fig. 3 is a sectional plan, the cutting-plane being on line xx on Fig. 2. Fig. 4 is a sectional elevation of the upper pivotal connection of the two parts of the tool, and Fig. 5 is a plan of the smaller or pivoted portion.

In the drawings, A is the main body of the burnishing-tool provided with the shank B, by which it is secured in the reciprocating carrier of a burnishing-machine in a well-known manner. The front face of the part A has formed thereon the smooth flat surface a to bear against the tread-surface of the heel, the shoulder b to act upon the corner of the top lift, and the curved corrugated or beaded surface c , all substantially as described in said before-cited patent.

C is the pivoted portion of the tool having its front face corrugated or beaded, as described in said patent.

In the heels of ladies' boots and shoes which have their edges formed of reverse curves extending from the tread-surface to the heel-seat, the angle at which the edge of the top lift meets the tread-surface of the heel is very much more acute at the center of the rear of the heel than at the sides near the breast of the heel, and constantly varies as the heel is turned from one point to the other, and hence it is next to impossible to properly burnish the top-lift edge from breast to breast with a

tool the two parts of which are fixed relative to each other without doing injury to the corner of the top lift. This difficulty led me to invent the tool described in the before-cited patent, in which I use two adjustable parts set at different angles relative to the main body of the burnisher, one being used to burnish the rear of the top-lift edge and the other to burnish the side portions of the top-lift edge.

The object of my present invention is to produce a burnishing-tool which will automatically adapt itself to the varying angle with which the vertical curve of the heel edge meets the tread-surface thereof, and thus render it practical to burnish the top-lift edge from breast to breast with the same tool and without removing the heel from contact with the tool. To this end I provide the main body A of the burnishing-tool at each end with the elbow-like arms $d d'$ and the part C with similar elbow-like arms $e e'$, and connect the parts d' and e' by the screw-centers or journal-pins $f f$, the axes of which are in exact axial line with the corner of the shoulder b contiguous to the portion C of the burnisher.

One of the elbow-arms e' is extended beyond its pivotal connection with the arm d , as shown at f' in Fig. 5, and is connected by the spring g to the arm h projecting from the hub of the main body A, the tension of which spring serves to normally hold the part C in the position shown in Figs. 1 and 3, with the end f' of the arm e' in contact with the adjustable screw stop-pin i , which has its bearing in an ear j , projecting from the upright portion of one of the elbow-arms $d d'$, as shown in Figs. 1, 2, and 4. The screw stop-pin i is adjusted till the angle between the working-face of the part C and the surface a of the part A coincides substantially with the angle of the vertical curve of the rear of the heel to the tread-surface thereof. Now, if the side of the heel edge at or near the breast is pressed against the working-face of the part C with the tread-surface of the heel resting fairly upon the surface a , the part C will yield, overcoming the tension of the spring g until the two parts fit the angle of the heel at that point. Then as the heel is revolved while the tool is being rapidly reciprocated and the angle of the heel becomes more acute, the ten-

sion of the spring *g* will cause the part C to bear with sufficient force upon the heel edge to properly burnish it without changing the position of the tread-surface relative to the surface *a*.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A heel-burnishing tool made in two parts pivoted together and mounted on a suitable support or shank and each provided with a burnishing-surface, said burnishing-surfaces arranged to meet each other at an angle in axial line with their pivotal connection, one of said surfaces being constructed and arranged to act upon the tread-surface of the heel and the other to act upon and burnish the top-lift edge, in combination with a spring connected at one end to the axially-movable part of said tool and at the other end to the support or shank, and adapted to automatically move said part about its axis and to yield and to cause said part to adapt itself to the varying angle at which the top-lift edge meets the tread-surface of the heel.

2. In a heel-burnishing tool, the combination of the main body A, provided with the

tread bearing-surface *a* and the top-lift bead or shoulder *b*, the pivoted portion C, and the spring *g*.

3. The combination, in a heel-burnishing tool, of the main body A, provided with a tread bearing-surface and a top-lift bead or shoulder, a top-lift edge-burnishing portion pivoted to the main body in axial line with the contiguous corner of said top-lift shoulder, a spring arranged to hold said pivoted portion normally in a predetermined position, and a stop to determine said position.

4. The combination of the main body A, provided with the shoulder *b*, the part C, pivoted to the part A in axial line with the contiguous corner of the shoulder *b* and provided with the extension-arm *f'*, the spring *g*, and the adjustable screw stop-pin *i*.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 28th day of January, A. D. 1889.

JAMES H. BUSELL.

Witnesses:

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