

No. 30,508.

PATENTED OCT. 23, 1860.

J. S. STUART & A. L. CORSON.  
MACHINE FOR SHAPING THE HEELS OF BOOTS OR SHOES.

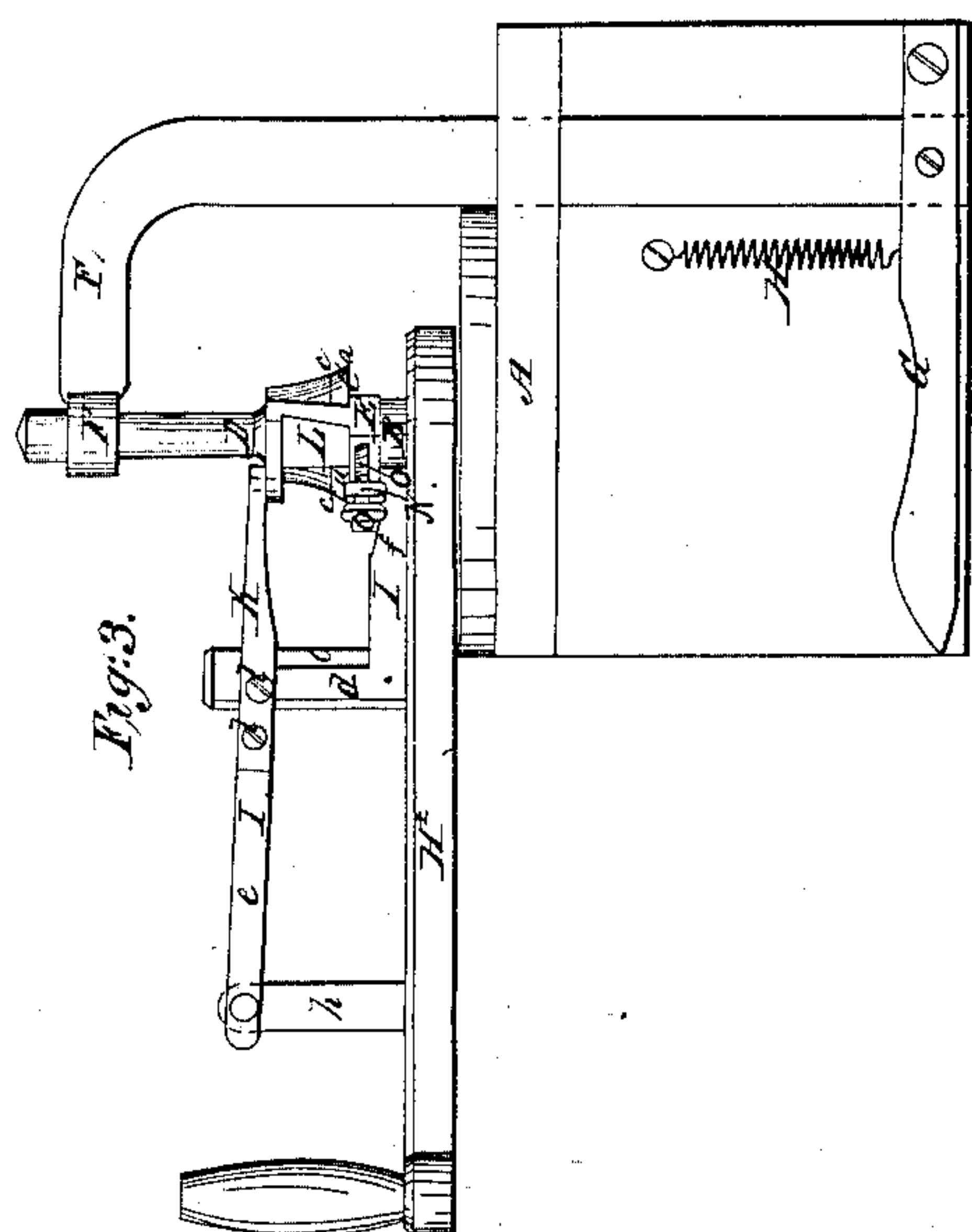


Fig. 3.

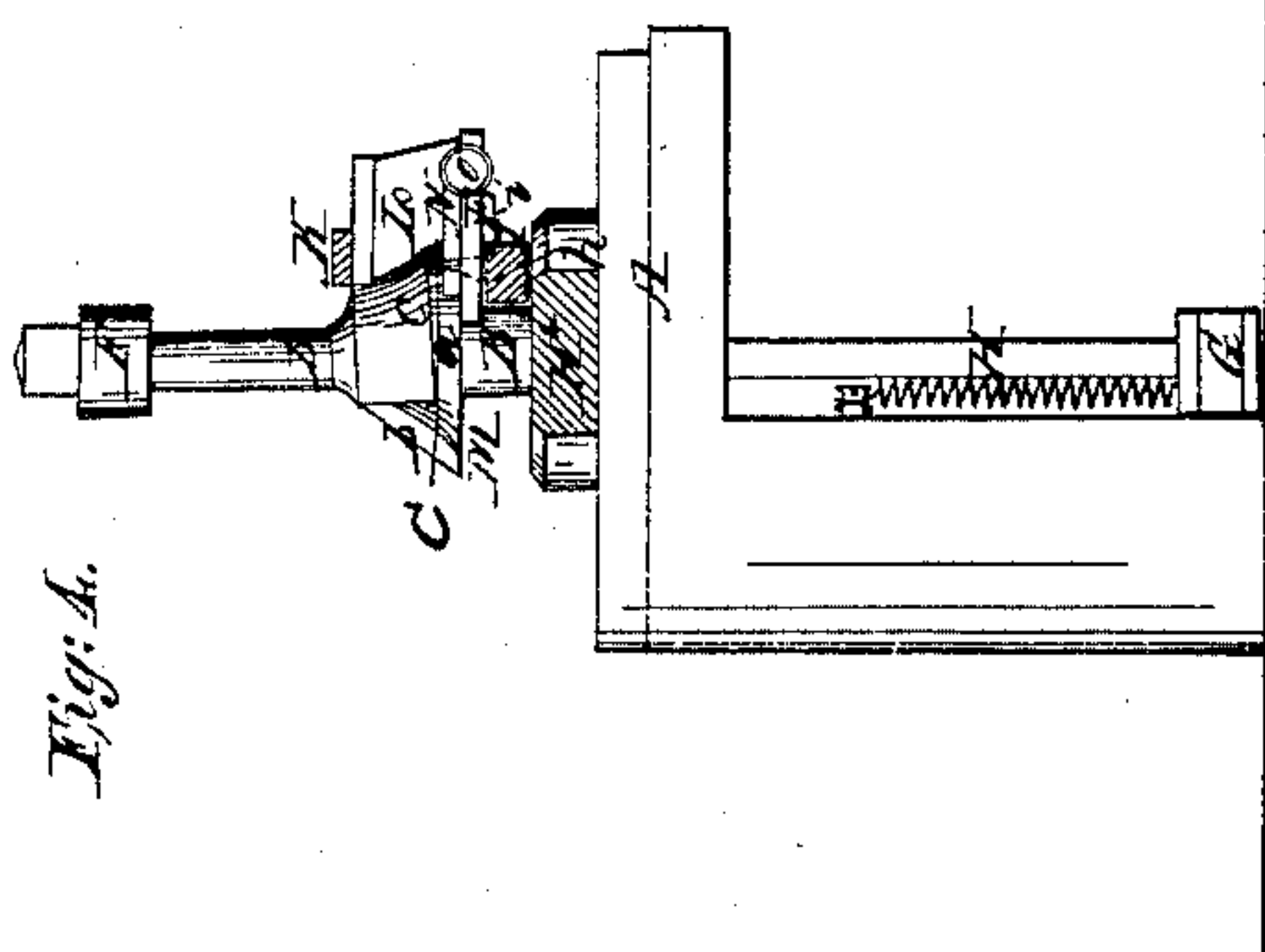


Fig. 4.

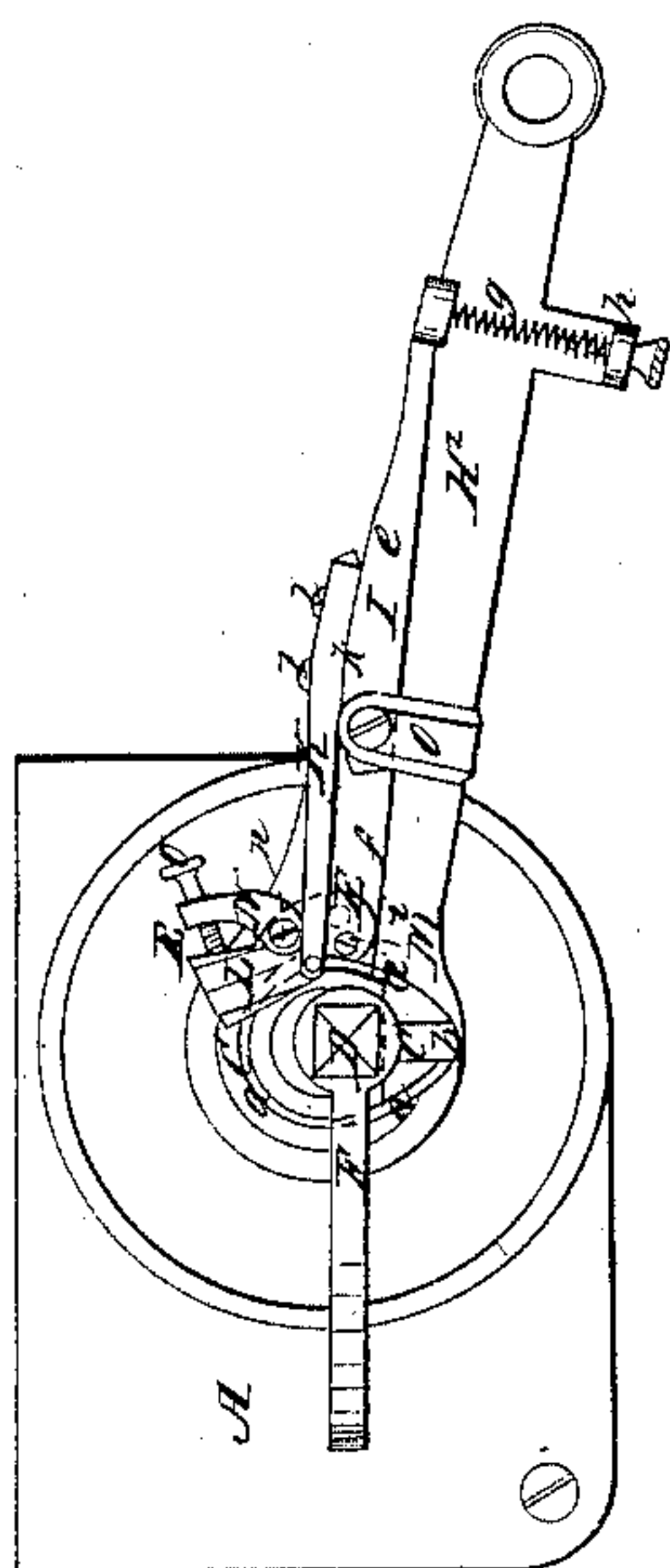


Fig. 1.

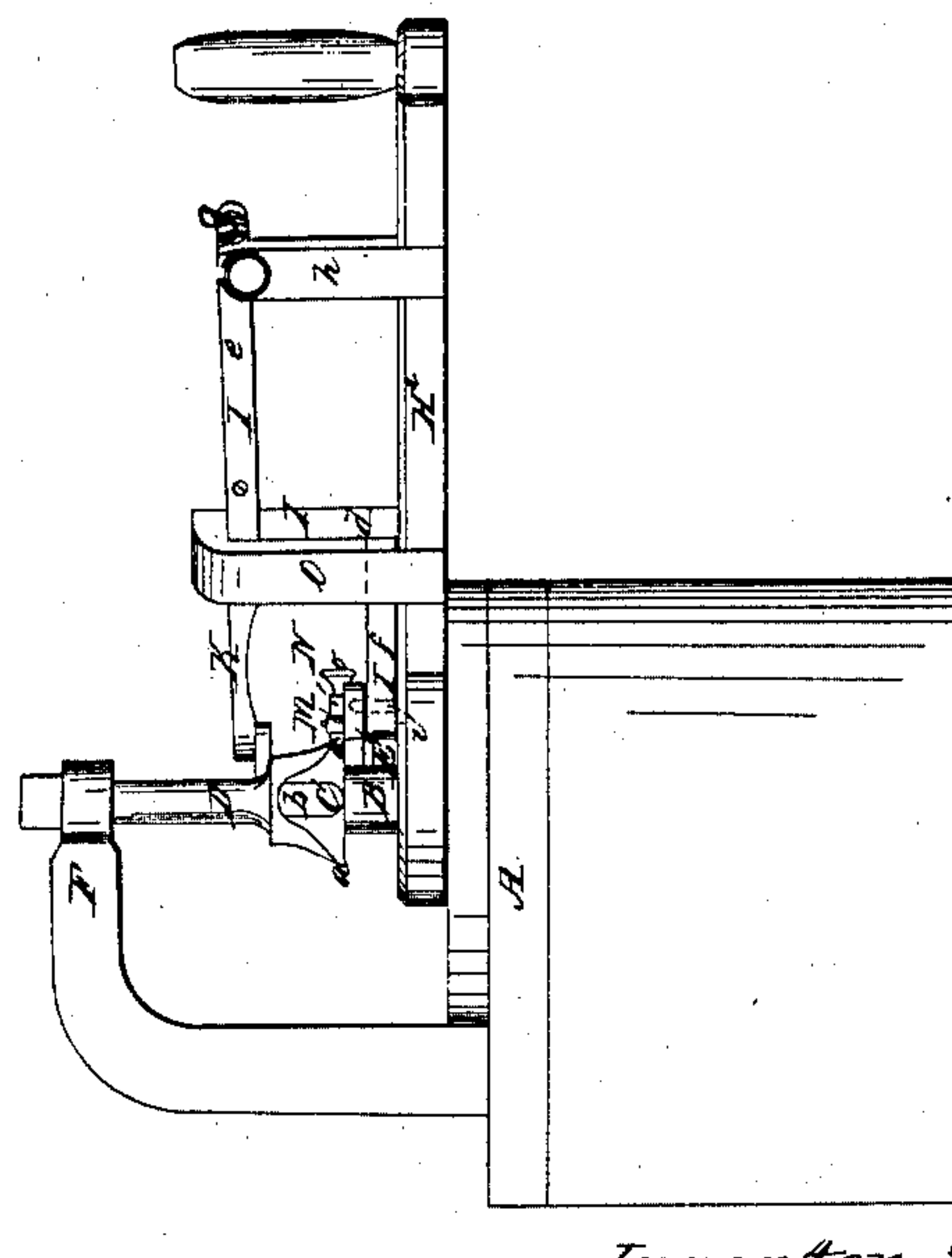


Fig. 2.

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# UNITED STATES PATENT OFFICE

J. S. STUART AND A. L. CORSON, OF MARBLEHEAD, MASSACHUSETTS.

## MACHINE FOR DRESSING BOOT AND SHOE HEELS.

Specification of Letters Patent No. 30,508, dated October 23, 1860.

*To all whom it may concern:*

Be it known that we, JOHN S. STUART and ASAEL L. CORSON, of Marblehead, in the county of Essex and State of Massachusetts, have invented an Improved Machine for Shaping or Dressing the Heels for Boots and Shoes; and we do hereby declare the same to be fully described in the following specification, and illustrated in the accompanying drawings, of which—

Figure 1, is a top view. Figs. 2 and 3, side elevations, and Fig. 4, a transverse section of it, the plane of section being in front of the holding jaws and parallel to the arm which supports the upper of them.

In the drawings A exhibits the bed or frame of the machine, the same serving to support a vertical post B, which sustains the lower or pattern jaw C. This pattern jaw is formed with a curved edge *a*, which serves as a pattern or guide for the knife carrier E. Furthermore, the jaw C has a shoulder or abutment *b*, and a flat bed or bearing surface *c*. This surface, *c*, slopes a little with respect to the bottom of the jaw, or, in other words, is so arranged as to cut the axis of the post B, at obtuse angles, the same being as shown in the drawings which represent the plane of the bottom of the jaw as arranged at right angles with the axis of the part B.

Over the jaw C is a movable jaw or clamp D, which is supported by an arm F, extending upward from a treadle G, provided with a lifting spring H, the whole being arranged as shown in the drawings. The lower face of the jaw D is parallel to the seat of the jaw C.

A long lever  $H^2$  extends at a right angle from the post B, and is applied thereto so as to be capable of being turned on the post as a fulcrum, and in a plane perpendicular to the axis of the post. This lever and a post *o*, projecting upward from it serve to support the fulcrum of a second or bent lever I, composed of a vertical shaft *d*, and two arms *e*, *f*, arranged as shown in Figs. 1 and 3. The outer end of the arm *e* bears against a spring *g*, extending from another post *h*, that projects upward from the lever  $H^2$ .

On the inner arm *f*, the knife carrier is pivoted as shown by dotted lines at *i*, in Fig. 2. At its upper part, the said knife

carrier, is jointed or hinged to an adjustable arm K, carried by the upper arm of the lever I. The arm K rests against a curved seat *k*, made on the side of the arm, *e*, and is connected to the latter by two screws *l*, *l*. By means of the curved seat *k*, and the screws, *l*, *l*, the arm K, may be so adjusted as to vary the angle of the knife frame or the knife relatively to the upper surface of the lower jaw the knife being arranged in such frame as shown at L.

From the above, it will be seen that the plane of movement of the cutter or knife is parallel to that of the lever  $H^2$ , and consequently the bearing faces of the holding jaws are arranged in a sloping manner relatively to the plane of movement of the cutter, the object of such arrangement being hereinafter mentioned.

A small friction roller M, supported by a stud projecting upward from the knife carrier, rests against the pattern *a*. Between this roller and the knife is a lever N, which turns on a fulcrum *n*, extending from the knife carrier. The inner or shorter arm of the said lever N, bears against the pattern *a*, while the longer arm of such lever has a screw O, screwed through it and against the vertical edge of the knife carrier.

In operating with the above-described machine, the block or pack of leather to be shaped or made into a heel, is to be placed on the top surface of the lower jaw and with one side against the abutment or shoulder of such jaw. This having been done, the upper jaw is to be forced and held down upon the leather so as to clamp it in position. Next the lever  $H^2$  is to be so moved on its fulcrum B, as to cause the knife to pass around the pattern and cut through the leather. The spring *g*, serves to keep the knife frame roller M, and the regulator lever N, close up to the edge of the pattern. The purpose of the said lever N, and its screw O, is to properly adjust the knife to the edge of the pattern as the said knife may become worn, the seat *k*, and the screws *l*, *l*, serving to vary the angular position of the knife relatively to the seat of the lower jaw the same serving to define the rake or bevel of the periphery of the heel. This periphery, however, has a varying bevel, it being less at the vertex of the curve than at its ends and it is for this

reason that the bearing faces of the jaws are arranged in the sloping manner as above specified.

We claim—

5 1. The above explained mode of applying the knife carrier E, to the spring lever I, viz, by the pivot *i*, and the arm *f*, adjustable with respect to the lever and connected with the knife carrier substantially  
10 as described.

2. The combination and arrangement of the regulating lever N, and screw O, with

the knife carrier E, its guide roller M, and pattern *a*.

3. The arrangement of the bearing faces 15 of the heel supporting jaws with respect to the plane of movement of the cutter in making the bevel of the sides of a heel.

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Witnesses:

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