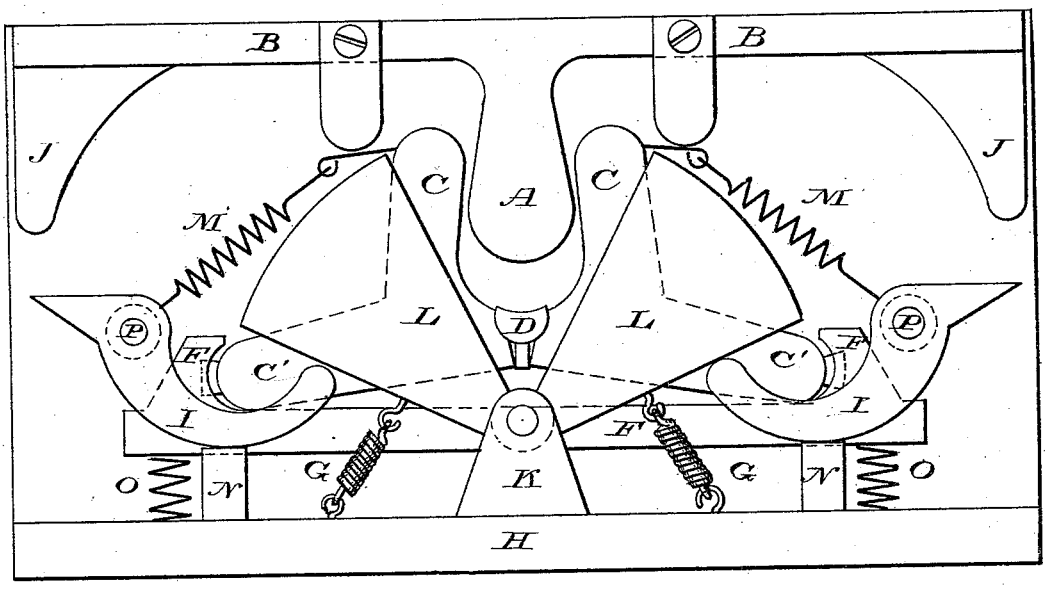
M. H. HALL.

Machine for Crimping Heel-Stiffeners for Boots and Shoes

No. 213,191. Patented Mar. 11, 1879.



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MERRITT H. HALL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR CRIMPING HEEL-STIFFENERS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **213,191**, dated March 11, 1879; application filed August 30, 1878.

To all whom it may concern:

Be it known that I, MERRITT H. HALL, of the city and county of Philadelphia, State of Pennsylvania, have invented new and useful Improvements in Machinery for Dieing and Crimping Heel-Stiffenings for Boots and Shoes; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, which is a front view of my invention, and letters of reference marked thereon.

This invention relates to machinery for forming into proper shape the counters or stiffenings placed above the soles in boots and shoes; and consists of a movable male plunger, a female die in three parts, with lever-arms resting on abutments of a movable bed-plate, which is supported by springs above a rigid bed-plate, to which are attached a hinged pair of crimping-jaws, operated by levers, cams, and springs, the whole constituting a forming or molding and crimping device, which may be placed and operated in an ordinary pressing-machine.

I will now proceed to more fully describe the construction and operation of this invention.

In the accompanying drawing, which forms a part of this specification, A is a male plunger, attached to the movable platen B B, placed so its vertical center line coincides with that of the female die C C and joint device D. This die rests upon its extremities C′, which bear against the abutments E E of the movable bed-plate F, which are supported by the springs O O above the rigid bed-plate H, which has a lug, K, to which are hinged the two crimping-jaws L L, drawn open by the springs G G against the closing-levers I I, which pivot on the posts P P, to which are attached the springs M M, for opening the jaws of the female die by drawing them back against a stop-pin or shoulder. The bed-plate H also carries two posts, N N, which support the levers I I and prevent the crimping-jaws L L from opening too far.

The joint device D at the bottom of the female die has a feather or tongue to prevent its being displaced, and provides a pivoting-surface, partially rotating around which the jaws of the die may open without showing a crack into which the material of the stiffening might drop and prevent their closing. They are kept in close contact by springs of a gum or elastic substance inserted in the abutments E E of the bed-plate F. J J are cam projections on the movable platen B B, which operate the levers I I.

The method of operating this invention is as follows: All being in place, the stiffener, cut to proper shape, is placed with its longest edge front in the space between the plunger and female die. The platen B is then caused to descend, which, forcing the male plunger down, firmly holds the stiffening by its center, and, continuing to descend, the female dies C C are forced against the abutments E E, which, resisting further motion, cause the compression of the stiffening. Now the springs O O begin to yield and the bed-plate descends, allowing the cams J J to operate the levers I I, by which the crimping-arms L L are closed, thereby crimping the edge of the stiffening over the front face of the plunger A.

I am aware that molding a stiffener to the shape required when in the shoe is not a new process, and that machines have been made for this purpose, all of which I wish to distinctly disclaim; but

What I do claim as my invention, and wish to secure as such by Letters Patent, is—

1. The female die C C, with joint device D, in combination with a male die or former, constructed substantially as and for the purpose hereinbefore set forth.

2. The female die C C, with extended arms or extremities, in combination with the abutment E on bed-plate F and crimping-jaws, all substantially as set forth.

3. The crimping-jaws L L, levers I I, and bed-plate H, in combination with cams J J, bed-plate B, plunger A, female die C C, and movable bed-plate F, when constructed substantially as and for the purpose hereinbefore set forth and described.

MERRITT H. HALL.

Witnesses:
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