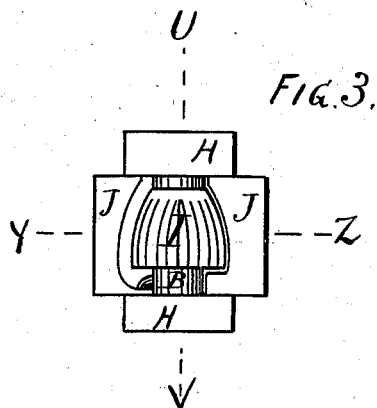
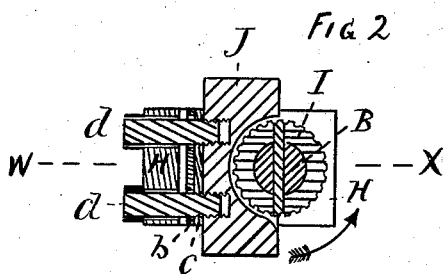
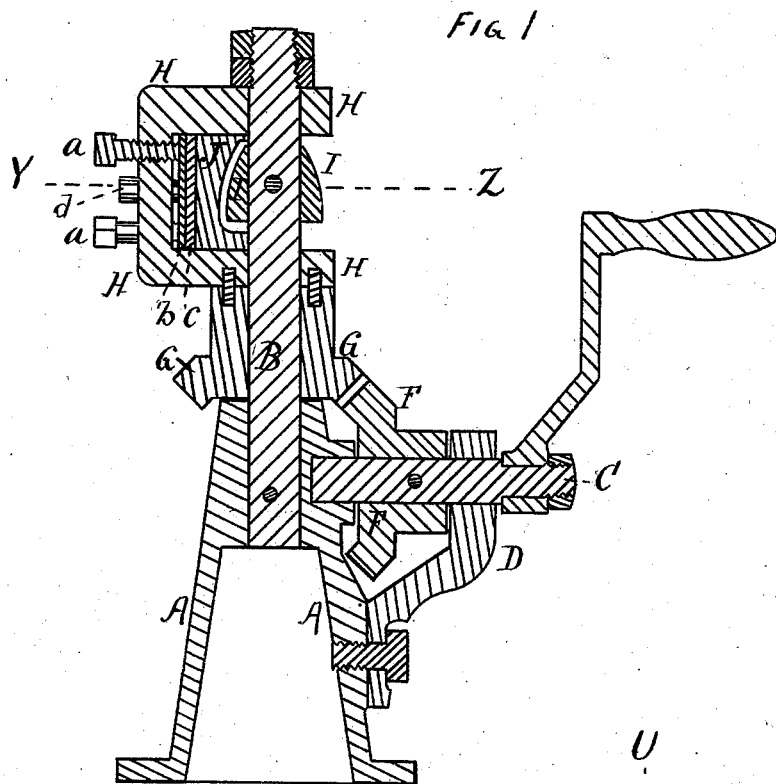


N. J. SIMONDS.  
 Machine for Molding Heel Stiffeners for Boots and  
 Shoes.

No. 201,457.

Patented March 19, 1878.



WITNESSES.  
 Samuel D. Kelley.  
 Eugene Humphrey.

INVENTOR.  
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 Attys.

# UNITED STATES PATENT OFFICE.

NATHAN J. SIMONDS, OF WOBURN, MASSACHUSETTS.

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

Specification forming part of Letters Patent No. 201,457, dated March 19, 1878; application filed June 25, 1877.

*To all whom it may concern:*

Be it known that I, NATHAN J. SIMONDS, of Woburn, State of Massachusetts, have invented a new and useful or Improved Heel-Stiffener Molding-Machine, of which the following is a specification:

This invention relates to that class of machines which are employed to mold into the exact form and contour which they are to occupy when incorporated into a boot or shoe the blanks of leather, leather-board, or other material from which such stiffeners are formed; and the invention consists in a circular male former rigidly secured in position, and having a longitudinal contour corresponding to the vertical curve of the stiffener, together with a female mold corresponding to a longitudinal half of such male former, and arranged to revolve around the former, the blanks being fed to and discharged from the molding devices at each revolution of the mold, the base-flange of the stiffener being turned beneath the base of the former by the action of the mold, all as will be fully described.

Figure 1 is a longitudinal vertical section of the machine, taken on a line indicated by line W X, Fig. 2, and line U V, Fig. 3. Fig. 2 is a horizontal transverse section of the machine, taken on a line corresponding to line Y Z, Figs. 1 and 3. Fig. 3 is a front elevation, showing the former, the mold, and the mold-holder, and as viewed from the right hand of Figs. 1 and 2.

In these figures, A A represent the base or body, which, for convenience, may be formed circular and of cast-iron. In it is rigidly secured the spindle B. Shaft C is journaled in the base and in a bracket, D, which latter may be cast as a part of the base itself. Upon shaft C is rigidly secured a miter-gear, F, which meshes into a similar gear, G, which revolves freely upon shaft B. To the upper or sleeve-like portion of gear G is secured the three-sided holder H, which may be thus secured to gear G, or formed as a part thereof. The toothed, grooved, or serrated former I is rigidly secured to shaft B, and is fixed and

motionless. The female mold J is secured in holder H by means of set-screws *d d*, which are threaded in the mold and shouldered against the holder. The set-screws *a*, also threaded in the holder, act against metallic plate *b*, between which and mold J an elastic plate, *c*, is interposed, and by means of these two series of set-screws the mold J may be adjusted relatively to the former I, to accommodate the thickness of the blanks, while cushion *c* compensates for inequalities in such blanks.

The mold J is rotated in the direction indicated by the arrow in Fig. 2, and the internal wall or angle is cut away, as shown in Figs. 2, 3, to facilitate the envelopment of the blank. The flange of the mold, which extends beneath the former, is also cut away at the advancing face, as is shown at the left in Fig. 3, so that the base-flange of the stiffener is gradually turned as the mold moves over the blank.

The machine may be impelled by the crank shown upon the shaft C, or by a pulley and belt or gears or otherwise.

It will be obvious that the manipulation of the crank will, through the agency of the gears; rotate the mold J continuously around the former I, and that, if the blanks be fed between such revolving mold and the former, the smooth-surfaced mold will, in moving over the blank, and by the concurrent aid of the former, mold them into the configuration of the space between such mold and former.

I claim as my invention—

In a boot and shoe stiffener molding-machine, the fixed central former I, the female mold J, adjustable toward or from the axial line of the former, the revolving holder H for supporting and carrying the mold in its orbit around the former, and devices for transmitting and imparting the driving-former to the traveling mold, all substantially as described and shown.

NATHAN J. SIMONDS.

Witnesses:

EUGENE HUMPHREY,  
EBEN HUTCHINSON.