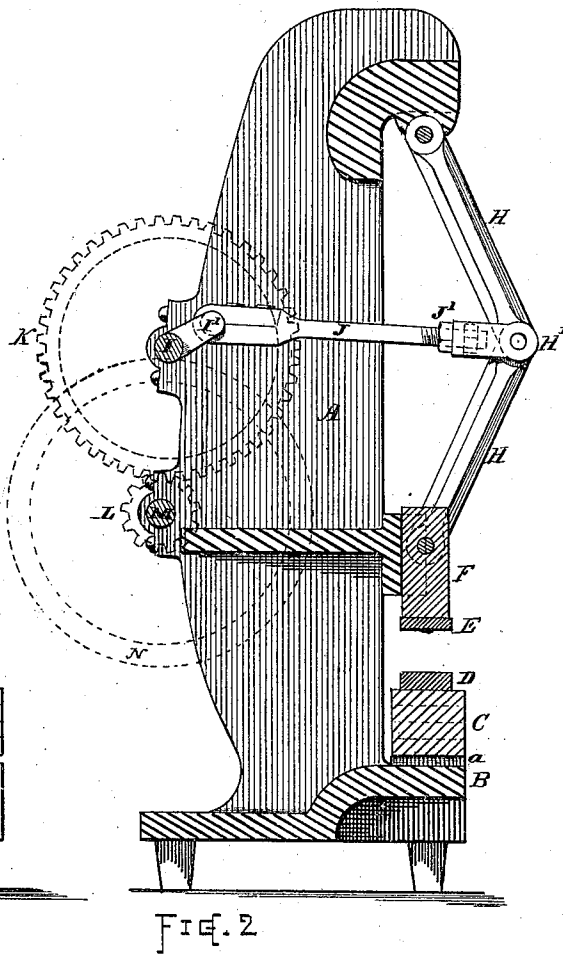
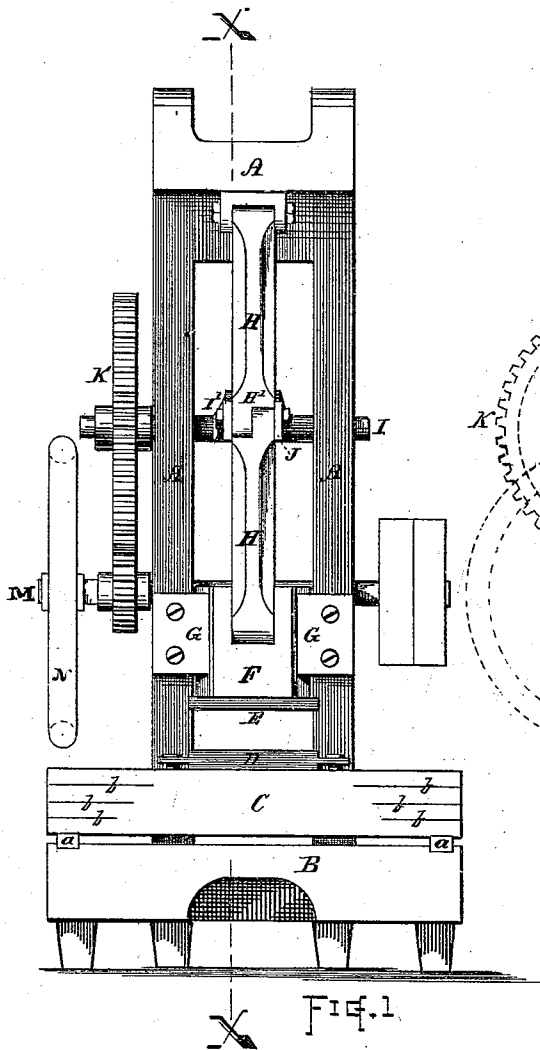


J. H. WALKER.

PRESSES FOR MOLDING THE SOLES OF BOOTS AND SHOES.

No. 186,909.

Patented Jan. 30, 1877.



Witnesses.

Charles Burleigh
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Inventor.

Joseph H. Walker.

UNITED STATES PATENT OFFICE.

JOSEPH H. WALKER, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN PRESSES FOR MOLDING THE SOLES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **186,909**, dated January 30, 1877; application filed December 15, 1876.

To all whom it may concern:

Be it known that I, JOSEPH H. WALKER, of the city and county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Presses for Molding Soles of Boots, &c.; and I declare the following to be a description of the same sufficiently full, clear, and exact to enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 represents a front view of my improved molding-press, and Fig. 2 represents a vertical section of the same at line *x x*.

My invention consists in a molding-press, for shaping the soles of boots and shoes, in which the shaping-dies are supported and operated by mechanism constructed and organized as herein shown and described.

In the drawings, A denotes the frame, which may be of metal, in the form shown, or, if preferred, of wood properly braced and stayed with metal rods. B denotes the bed, cast with or rigidly attached to the lower part of the frame A, and upon which is arranged the die-pillow C, which latter consists of a strong wooden block or bar, supported at or near its ends upon the bed B, as shown at *a a*, while its central portion is free from said bed B, so as to permit a slight deflection or springing movement as the molding-dies D E are forced together. The ends of the pillow-bar C are checked; or cut with a thin saw, as at *b b b*. These saw-kerfs *b* close together as the central portion of the bar is deflected, and cause an increase of rigidity or stiffening of the spring-power as the deflection of the bar increases, while there is no liability of depressing one end of the pillow C to a greater extent than the other, and thus throwing the mold from a horizontal position. The lower mold or die D is supported upon and secured to the pillow-bar C, while the upper die or follower E is attached to a slide, F, which works

between the guides G G at the front of the frame A. H H indicate the toggle-joint arms or levers for moving the slide F. I indicates a crank-shaft, supported in bearings at the rear part of the frame, and from the crank I' of which a pitman, J, extends to the knuckle-joint H' of the levers H, where it connects with their joint-bolt, and operates the parts as the shaft I revolves. The pitman J is fitted with a screw adjustment, J', whereby the length of throw can be regulated. The crank-shaft I is provided with a gear, K, which meshes with a pinion, L, on a driving-shaft, M, which latter receives its power by suitable belt and pulley from the mill shaft or motor.

A fly-wheel, N, may be arranged on shaft M, to equalize the movement of the machine.

The shape of the die-faces should be made to correspond with the shape which it is desired to impart to the boot-soles.

It will be observed that this machine is simple and not liable to derangement in its parts, that the dies open and close with a regular and powerful movement, and that the pillow C, while retaining the die squarely horizontal and giving firm support, still permits sufficient deflection to avoid injurious strain by reason of the inequality in the thickness of the soles.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the bed B and mold or die D, of the wood pillow-bar C, supported at *a a*, and checked; or kerfed at *b b*, substantially as and for the purpose set forth.

2. In combination and relative arrangement, as herein shown and described, the frame A, bed B, crank-shaft I, pitman J, toggle-levers H H, slide F, molds or dies E D, and wood pillow-bar C, provided with checked or kerfed ends, all constructed and operating as and for the purposes set forth.

JOSEPH H. WALKER.

Witnesses:

CHAS. H. BURLEIGH,
S. E. BARTON.