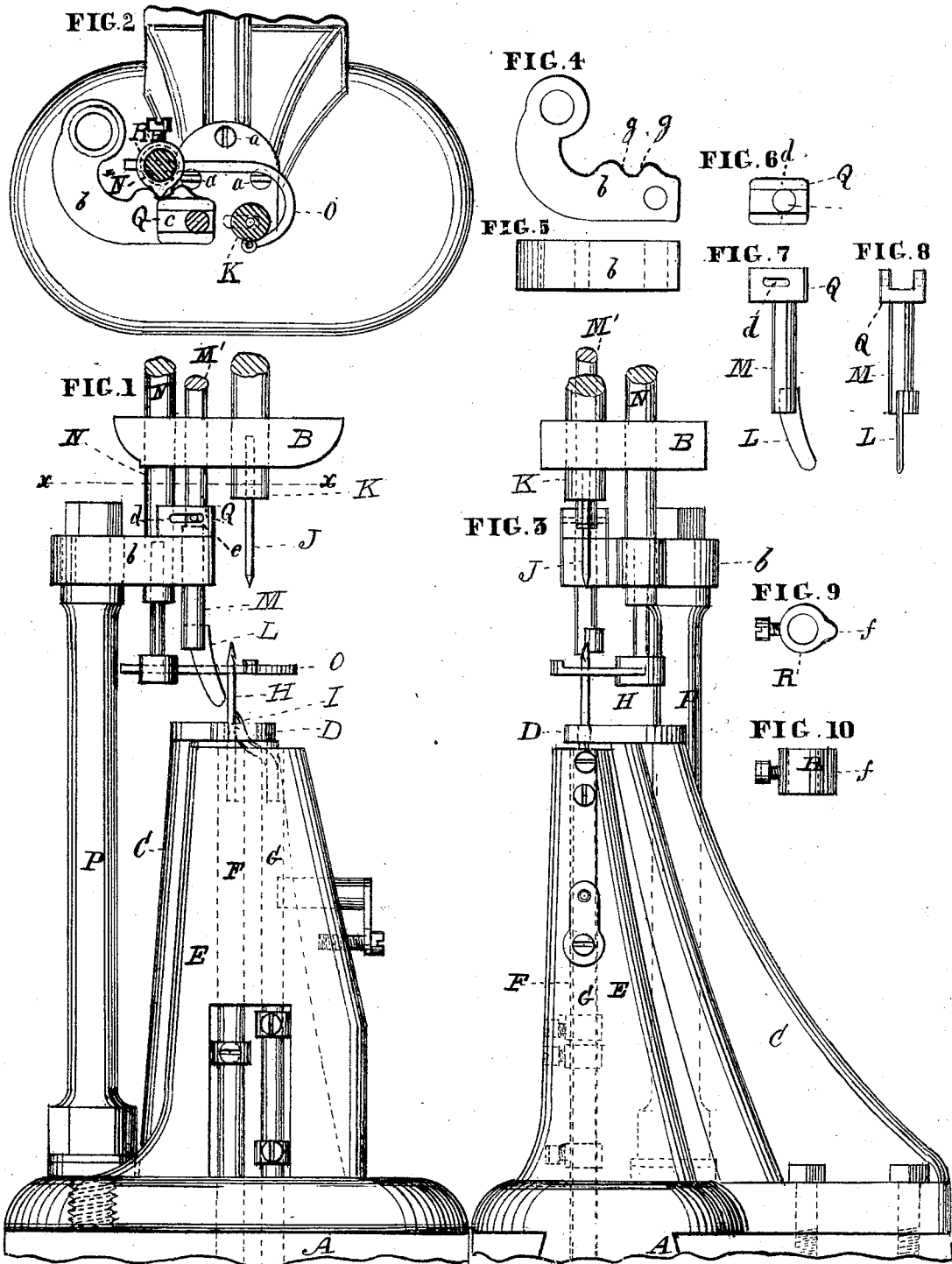


J. J. JORDAN.

Improvement in Sewing-Machine for Boots and Shoes.
 No. 128,313.

Patented June 25, 1872.



WITNESSES.

Thomas J. Bewley
 Adam Mathman

INVENTOR.

John G. Jordan
 By His Attorney
 Stephen Ustick

UNITED STATES PATENT OFFICE.

JOHN J. JORDAN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO WILLIAM H. JOHNSON, OF SAME PLACE; SAID JOHNSON ASSIGNOR TO MILLS' SHOE-MACHINE AND MANUFACTURING COMPANY.

IMPROVEMENT IN SEWING-MACHINES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 128,313, dated June 25, 1872.

Specification describing certain Improvements in Machines for Sewing Turn-Round and Welted Shoes, invented by JOHN J. JORDAN, of the city of Philadelphia and State of Pennsylvania.

The first part of the invention relates to the separation of the foot-bar into two sections so that the lower one may have a reciprocating motion back and forth, carrying the foot along with the needle and in close proximity thereto in its forward and backward motion, the upper section remaining in its vertical position, to support the shoe at that point to take the strain off the needle, there being a slotted slide in connection with the contiguous ends of the two sections, to provide for the elevation and depression of the lower section with the upper section when the latter is caused to move in the usual manner, for elevating and depressing the foot; and, there being also an arm attached to the upper end of a vertical rod, the lower end of which is connected to the reciprocating slide which carries the needle and cast-off bars, in which arm the lower section of the foot-bar plays. The arm also supports said slide in its lower position. The second part of the invention relates to providing the said arm with double inclines and the thread-guide bar with a cam arranged between the same, so that the reciprocating movements of the slide which carries the needle and cast-off bars shall give the requisite reciprocating swinging motions to the thread-guide, as hereinafter described.

Figure 1 is a front elevation of the improved machine. Fig. 2 is a plan view, partly in section, at the line *x x* of Fig. 1. Fig. 3 is an end elevation. Figs. 4 and 5 are a top and edge view of the arm *b*. Fig. 6 is a top view of the slotted head *Q* in connection with the lower section *M* of the foot-bar. Figs. 7 and 8 are views, at right angles with each other, of the foot *L*, the lower section *M* of the foot-bar, and its slotted head *Q*. Figs. 9 and 10 are an end and side view of the hub *R*, provided with a cam, *f*.

Like letters in all the figures indicate the same parts.

A is the bed-plate, and B the top part of the standing frame. C is a standard on which the rest-plate D, which supports the shoe as it travels around during the stitching operation, is confined by means of screws *a a a*. E is a slide with which the needle-bar F and cast-off bar G are connected in the usual manner. H is the needle, and I the cast-off. J is the awl and K the bar to which it is attached. L is the foot, and M and M' the bar to which it is connected. N is the thread-guide bar, and O the thread-guide. The up-and-down motions are given to the several bars above enumerated in the usual manner. A description thereof is therefore omitted here. In order to provide for the foot L being retained in close proximity to the needle H, and in advance of the same, I separate its bar into two sections, the upper section sliding up and down in the frame B, while the lower section has its vertical movement in the arm *b* attached to the upper end of the vertical rod P, whose lower end is confined to the slide E. The contiguous ends of the foot-bar M and M' are connected by means of the slotted head Q of the lower section M, the slot *c* in the upper end of the head sliding over the lower end of the rod M' during the reciprocating movements of the slide E, and the horizontal slots *d d* sliding over the ends of the pin *e* with which the lower end of said rod is provided. The connection of the pin *e* with the said slots *d d* is for the purpose of maintaining the altitudinal connection of the rod M with the rod M', to provide for the vertical movements of the former, while the movements of the latter are communicated in the usual manner. The rod M, provided with the foot L and head Q, is shown in detail in Figs. 6, 7, and 8. Instead of the rod M having a vertical movement in the arm *b*, it may be permanently connected with it, if desired, and the up-and-down movements permitted by the outer end of the arm sliding on the rod P. The thread-guide bar N has a hub, R, which is provided with a cam, *f*, shown clearly in Figs. 9 and 10. The cam is arranged between the double inclines *g g* on the rear side of the arm *b*, so that dur-

ing the reciprocating movements of the slide E, as the arm moves backward and forward, the bar is turned partly around each way and the requisite reciprocating swinging movements given to the thread-guide O. The throw of the guide may be regulated by the adjustment of the cam *f*.

I claim as my invention—

1. The foot-bar composed of the pieces M and M' and the slotted head Q, combined with the arm *b*, rod P, and the slide E, for causing the foot L to move backward and forward with the

needle, substantially in the manner and for the purpose set forth.

2. The combination and arrangement of the cam *f* of the hub R on the thread-guide bar N with the double inclines *g g* of the arm *b*, for giving a reciprocating swinging movement to the thread-guide O, substantially as described.

JOHN JOS. JORDAN.

Witnesses:

STEPHEN USTICK,
THOMAS J. BEWLEY.