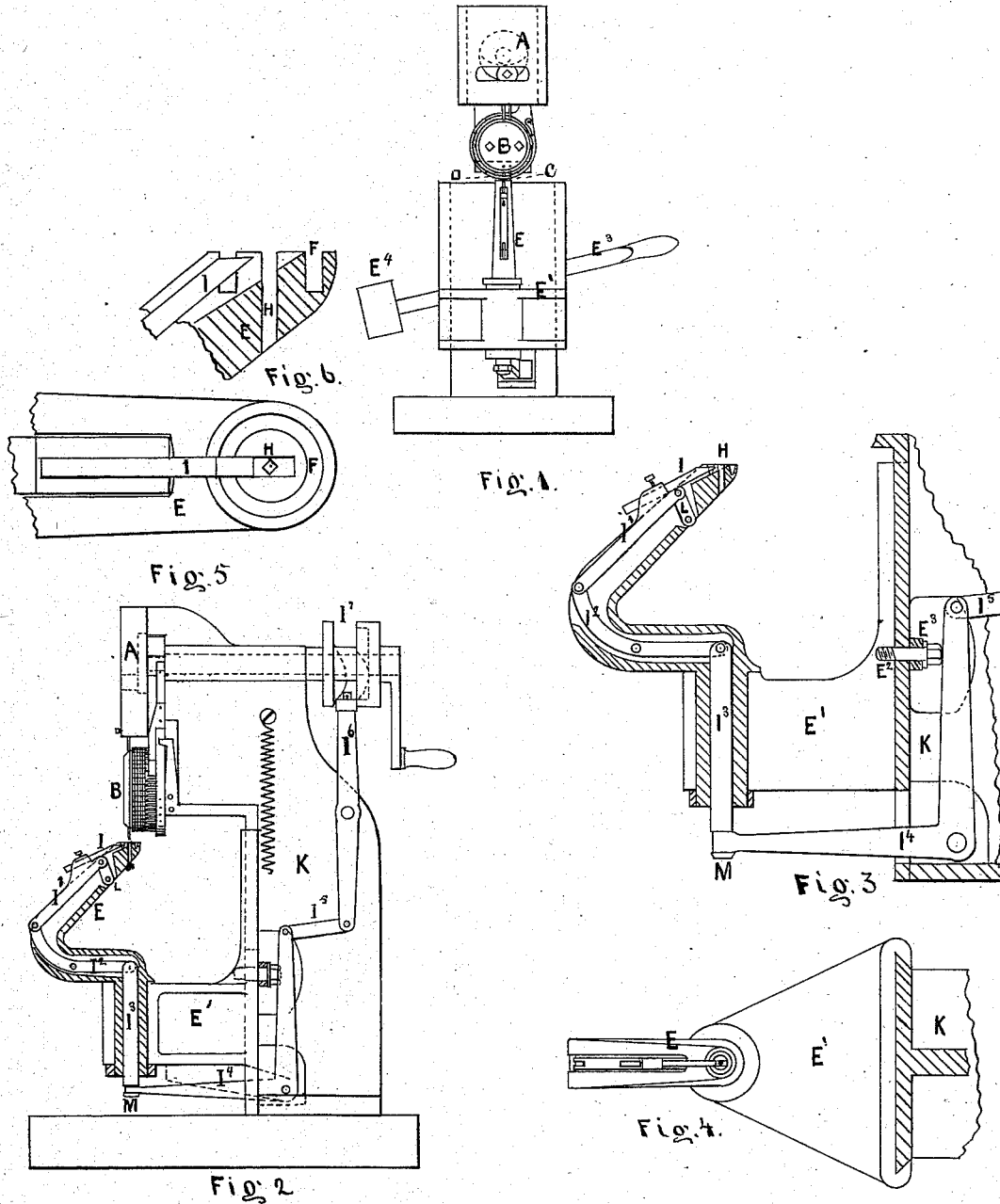


J. E. BICKFORD & B. F. STURTEVANT.  
 Pegging-Machine.

No. 162,887.

Patented May 4, 1875.



WITNESSES  
 Frankl. Parker  
 John J. Haley

INVENTORS  
 John E. Bickford  
 Benjamin F. Sturtevant  
 per William Edson Atty.

# UNITED STATES PATENT OFFICE.

JOHN E. BICKFORD, OF ABINGTON, AND BENJAMIN F. STURTEVANT, OF  
BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN PEGGING-MACHINES.

Specification forming part of Letters Patent No. 162,887, dated May 4, 1875; application filed  
April 5, 1873.

*To all whom it may concern:*

Be it known that we, JOHN E. BICKFORD, of Abington, county of Plymouth and State of Massachusetts, and BENJAMIN F. STURTEVANT, of Boston, county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in a Machine for Making Pegged Shoes, of which the following is a specification:

Our invention relates to an improvement in pegging-machines adapted to peg a boot or shoe resting on a supporting-arm, and without a last, the arm entering the shoe; and our invention consists in a shoe-supporting arm having a central awl-receiving passage and a surrounding annular groove or awl-receiving passage, so as to properly receive the awl in all positions of the arm.

Figure 1 is a front elevation of our invention, showing, in addition to the same, a part of the ordinary pegging device. Fig. 2 is a side elevation of the same, showing the supporting device in section. Fig. 3 is a vertical section of the supporting and cutting-off device. Fig. 4 is a plan of the parts shown in Fig. 3. Figs. 5 and 6 show, in plan and section, the end of the supporting-arm.

Let A, Fig. 1, represent a pegging device, which need not be described in the specification, as it forms no part of our invention, and may be constructed after any of the approved methods. B is the feed-wheel; C, the awl, and D the driver which forces the peg into the leather. E is a supporting-arm, formed as shown, and is arranged so as to swing freely about its vertical axis in the sliding bracket E<sup>1</sup>. The sliding bracket E<sup>1</sup> is attached by suitable ways to the frame K, Figs. 2 and 4, and is connected to the weighted lever E<sup>3</sup>, Figs. 1 and 3, by a stud, E<sup>2</sup>, Fig. 3, the lever E<sup>3</sup> being pivoted to the back of the frame K in such a manner that the weight E<sup>4</sup>, Fig. 1, will have a tendency to throw up the sliding bracket E<sup>1</sup>, and, consequently, the arm E. Thus the action of the weighted lever E<sup>3</sup>

is to hold the sole of the shoe which is upon the arm E against the feeding device B, and ready for the action of the pegger. The head of the arm E is arranged as shown in Figs. 5 and 6; the hole H being made vertical and in the axis of motion of the arm, so that its position is not changed by turning the arm. This arm is so located that the hole H is immediately under the peg-driver D, and this allows the peg, as it is driven, to pass freely through and project beyond the inner sole. The awl C, being out of the center of the arm, strikes, after it has passed through the sole, into an annular groove, F, as shown in Figs. 5 and 6; and as this annular groove is concentric with the axis of motion of the arm, it is evident that the awl will always strike in it, whatever may be the position of the arm.

To cut off the peg after it is driven we use the following device: I is a knife, fastened to the holder I<sup>1</sup>, the upper end of the holder I<sup>1</sup> being connected by a link, L, Fig. 3, to the arm, as shown, so that if the holder I<sup>1</sup> is thrown forward it takes the knife I across the opening H, Figs. 5 and 6, at the same time elevating it slightly, so as to cut off the peg close to the inner sole. This knife is operated by the system of levers and links I<sup>2</sup>, I<sup>3</sup>, I<sup>4</sup>, I<sup>5</sup>, and I<sup>6</sup>, and the cam I<sup>7</sup>, as shown in Fig. 2. The link I<sup>3</sup> of this system is in the center of motion of the arm, and is connected to the bent lever I<sup>4</sup> by a swivel-joint, M, so that any movement of the arm will not interfere with the action of the knife I.

We claim as our invention—

In a machine for pegging boots and shoes, the supporting-arm E, provided with the central opening H and the annular awl-receiving groove F, substantially as described.

JOHN E. BICKFORD.  
BENJAMIN F. STURTEVANT.

Witnesses:

FRANK G. PARKER,  
WILLIAM EDSON.