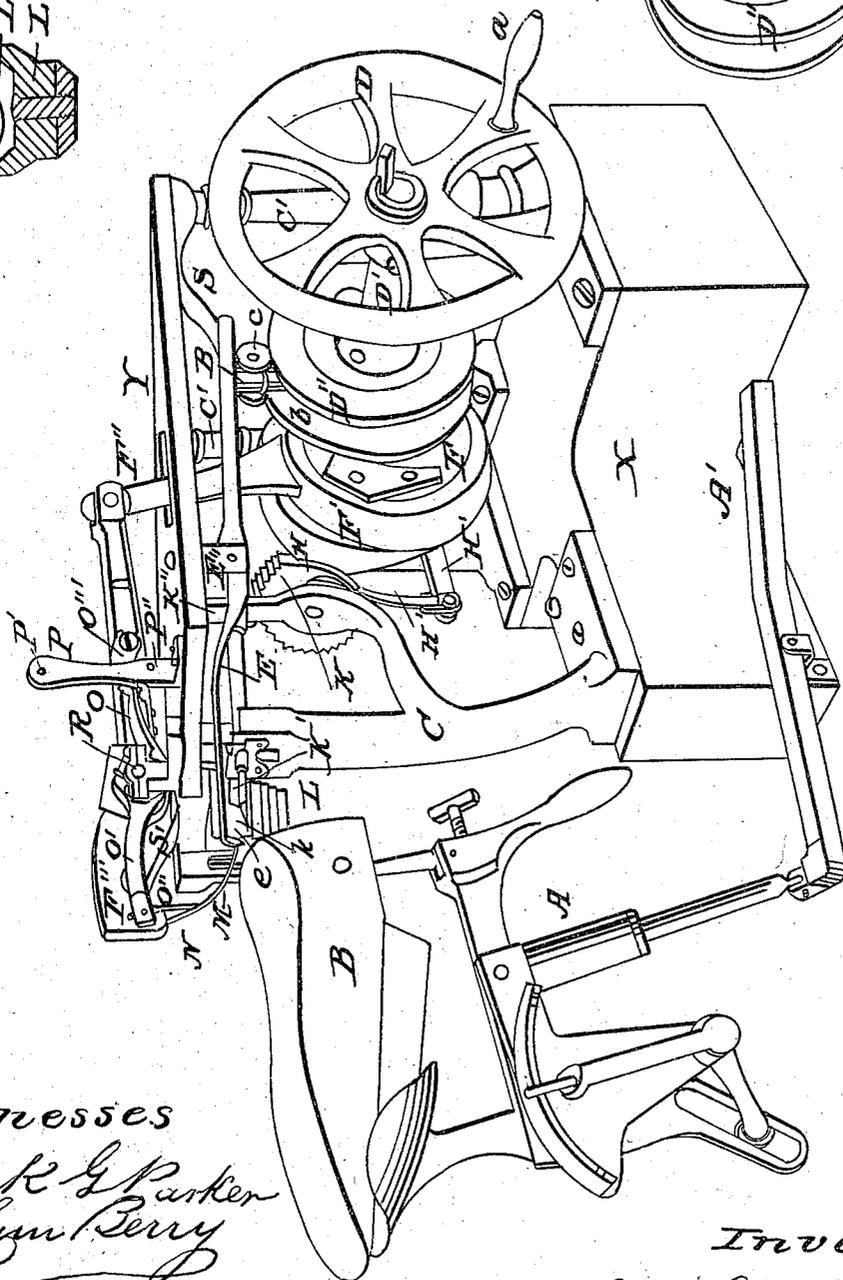
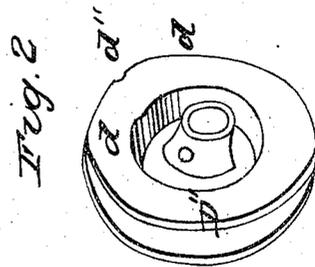
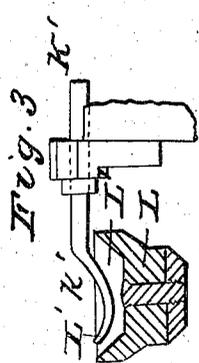


G. W. ELDRIDGE.  
Sewing Machine.

No. 87,331.

Patented March 2, 1869.



Witnesses

Frank G. Parker  
A. Sam. Berry

Inventor  
Geo W Eldridge

# UNITED STATES PATENT OFFICE.

GEORGE W. ELDRIDGE, OF CAMBRIDGEPORT, MASSACHUSETTS.

## IMPROVEMENT IN SEWING-MACHINES FOR SEWING SHOES.

*Specification forming part of Letters Patent No. 87,331, dated March 2, 1869.*

To all whom it may concern :

Be it known that I, GEORGE W. ELDRIDGE, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented a new and useful Machine for Sewing Turned Shoes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the peculiar arrangement of the several parts of a sewing-machine so that it will sew a shoe when upon the last; also, in combining with said machine a jack for holding the lasted shoe.

To enable others skilled in the art to make and use my machine, I will describe its construction and use.

In the drawings, Figure 1 is a perspective view of my invention, showing the machine in all its parts. Fig. 2 is a perspective view of the compound cam (D'', Fig. 1) which operates the feed-lever E, Fig. 1. Fig. 3 is a sectional view of the concave guide-roll L, Fig. 1.

As some of the parts of my machine are similar in construction to those in common use, I shall not describe them particularly.

X, C, C', and Y form together the base, standards, and table, to which the several parts of my machine are attached. D is a driving-wheel attached to the main shaft D', upon which shaft are hung the two cams D'' and H and eccentric F. D'' is a compound cam which serves to actuate the feed-lever E. E' is a stud attached to the feed-lever E. This stud works in a groove which extends around the cam D'', so arranged that the stud E' is stationary during the time that the needle is entering or withdrawing from the work, but partakes of a lateral motion when that part of the cam represented by *d d'*, Fig. 2, passes the stud E'. When that part of the cam represented by *d''*, Fig. 2, passes the small rollers *c c*, the point *e* of the feed-lever E will rise, since the spring S will depress the opposite end of the lever, and will stay in this position until the depressed part *d''* of the cam has passed the roller *c*. E'' is a double swivel, which serves as a fulcrum for the feed-lever E to vibrate upon.

F is an eccentric, which operates, through the eccentric band F' and eccentric rod F'', the needle-lever F'''. H is a cam, which op-

erates the lever H' which in its turn operating through the link H'', the segment gear K and the pinion K'', oscillates the looper K'. The looper K' is formed of a straight shaft and a part *k*, bent and formed as shown in Fig. 3, and has a small perforation at the extreme end, through which the thread passes. O' is a lever, which oscillates upon the spindle R of the needle-lever, and carries the cast-off O''. This lever is actuated by the toggle O''', and the pins P' P'', in the standard P, together with the spring S, or it may be operated by any of the devices in common use for this purpose.

A is a jack, suspended upon the lever A', which serves to hold the last B for a shoe. M is a small friction-wheel, against which the sole of the shoe rests. L, Figs. 1 and 3, represents a concave roller-guide, which serves to keep the shoe in proper position while being sewed. A concavity, L', is made in this guide, (see Fig. 3,) so that the end *k* of the looper may have space to operate therein.

I have not particularly described the parts of the jack A, and I do not wish to confine myself to any particular style of jack.

To operate my machine, I place a lasted shoe upon the jack A, and having previously prepared the machine for operation, I start the sewing works, and holding the shoe steadily, allow the feed to move it along under the needles. This operation requires some practice, and is quite similar to the work performed by an operator on the ordinary pegging-machine.

The lever A' may be held down by the foot, or may be weighted.

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

1. The combination of the grooved cam with its curved sides, the system of friction-rollers *c c* and *b*, and spring S, with lever E with its point *e*, the whole being so arranged as to give to the lever both a vertical and a horizontal motion, substantially as shown and described.

2. The arrangement of the lever H', link H'', segment-gear K, and pinion K'', for operating the looper K', substantially as described.

GEORGE W. ELDRIDGE.

Witnesses :

FRANK G. PARKER,  
A. HUN BERRY.