

(No Model.)

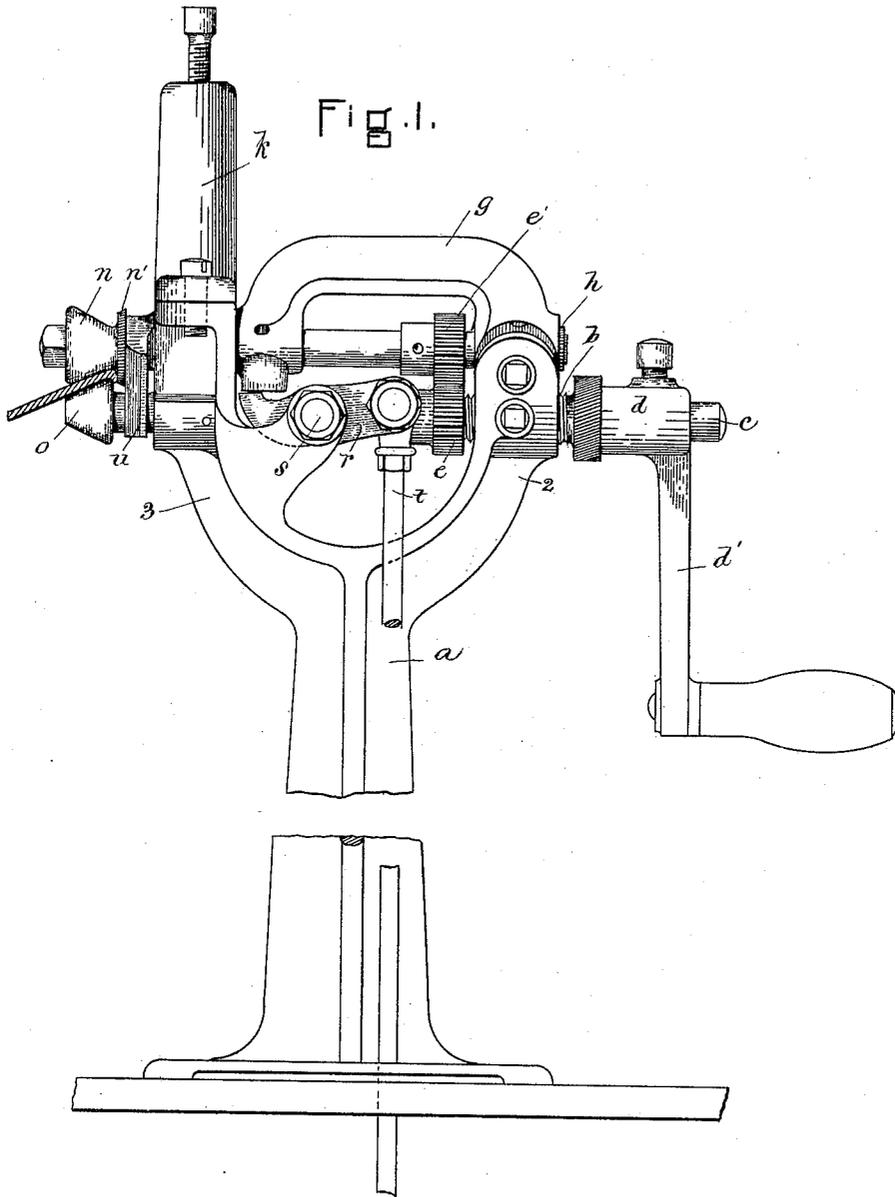
2 Sheets—Sheet 1.

A. EPPLER, Jr.

SOLE EDGE MOLDING MACHINE.

No. 387,059.

Patented July 31, 1888.



WITNESSES.

*H. Brown.*  
*A. D. Hanson.*

INVENTOR.

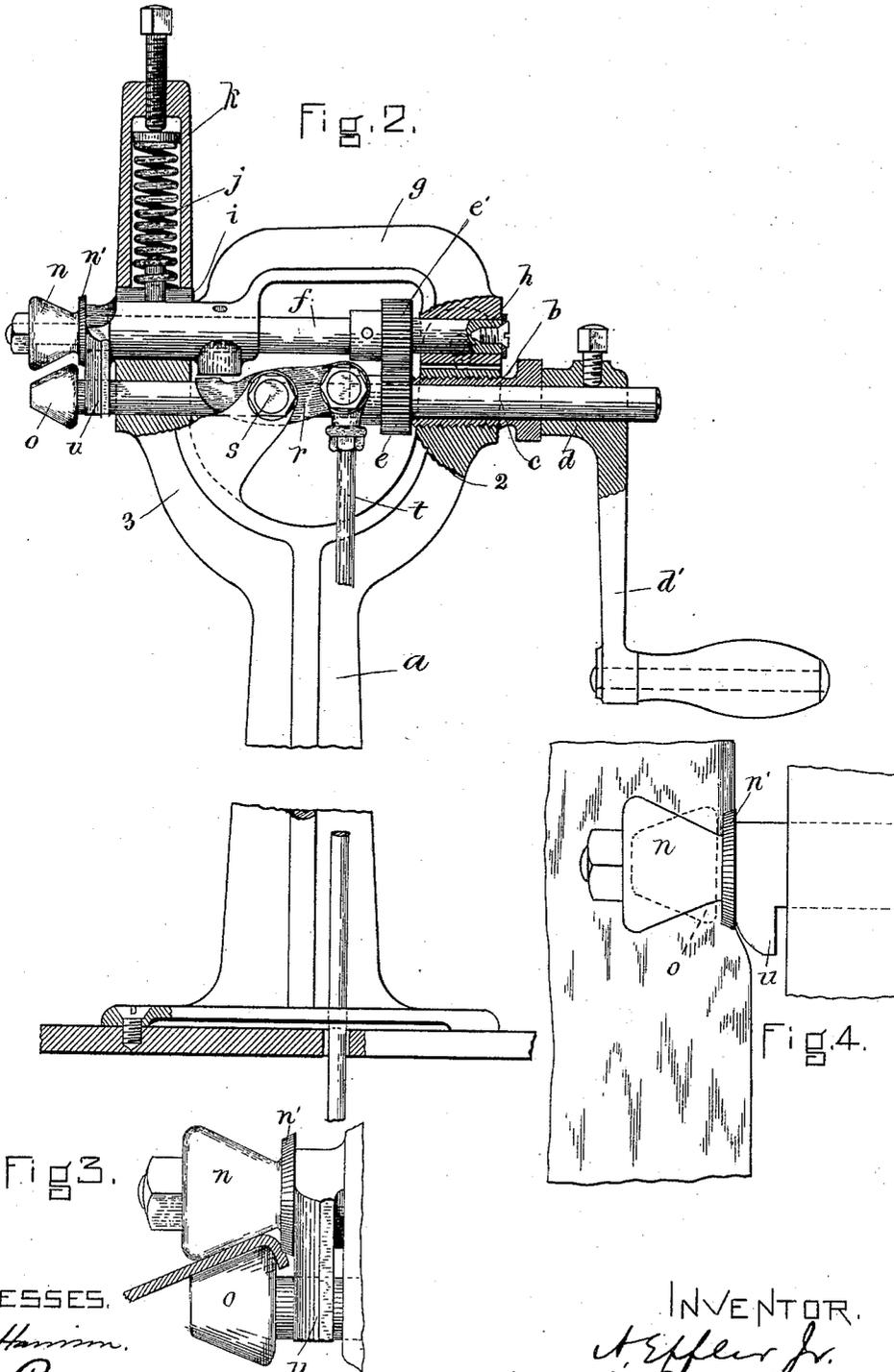
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# UNITED STATES PATENT OFFICE.

ANDREW EPPLER, JR., OF BOSTON, MASSACHUSETTS.

## SOLE-EDGE-MOLDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 387,059, dated July 31, 1888.

Application filed April 25, 1888. Serial No. 271,832. (No model.)

To all whom it may concern:

Be it known that I, ANDREW EPPLER, Jr., of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Sole-Edge-Molding Machines, of which the following is a specification.

This invention has for its object to provide improved means for turning or bending the edges of soles to enable them to be attached to uppers in the manufacture of turned shoes, or those in which the upper and sole are turned inside out while they are being stitched together.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of my improved machine. Fig. 2 represents a sectional view of the same. Fig. 3 represents an enlarged side view of the bending-rolls. Fig. 4 represents a top view of the same.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a supporting frame or standard having its upper portion divided into two arms, 2 3, one of which is provided with an adjustable socket or bearing, *b*, which is externally screw-threaded and is screwed into an internally-threaded cavity in the arm 2, by which means the said bearing is made adjustable horizontally.

*c* represents a shaft which is journaled in said adjustable bearing and in a bearing in the arm 3 of the standard. Said shaft is provided with collars or enlargements *d e*, which bear against the ends of the adjustable bearing *b*, so that the shaft is necessarily adjusted lengthwise by any adjustment of the bearing *b*. One of said collars is the hub of a crank, *d'*, by which the shaft *c* is rotated, while the other collar is a gear-wheel, *e*, which meshes with another gear-wheel, *e'*, on the upper shaft, *f*.

*g* represents a yoke or frame, one end of which is pivoted at *h* to the arm 2 of the standard *a*. The other end of said yoke is adapted to rise and fall in a slot or guide, *i*, in the arm 3, and is held down in said slot with a yielding pressure by a spring, *j*, located in a casing, *k*, attached to the arm 3.

*f* represents a shaft, which is journaled in bearings in the yoke *g* and normally extends substantially parallel with the shaft *c*.

*n o* represent frusto-conical rolls affixed, respectively, to the swinging end of the shaft *f* and to the corresponding end of the shaft *c*, the larger end of each roll being opposite the smaller end of the other roll, as shown. The roll *n* is provided at its smaller end with a flange, *n'*, which overlaps the larger end of the roll *o* when both rolls are in their normal position. The rolls are so arranged that there is a space between the peripheries of the rolls and between the base of the roll *o* and the flange of the roll *n*, so that the edge of a sole may be passed between the two rolls and between the flange and the base of the roll *o* and be bent near its edge by said flange and base, as shown in Fig. 3.

The longitudinal adjustability of the shaft *c* by means of the adjustable bearing *b* enables the space between the base of the roll *o* and the flange *n'* to be adjusted to the thickness of the sole to be operated upon, while the yielding movement which is given to the roll *n* by the pivoted yoke and the spring *j* enables the periphery of said roll to conform to any thickness that may be interposed between it and the lower roll, *o*.

To enable the operator to raise the upper roll I provide a lever, *r*, which is pivoted at *s* to an ear on the supporting-standard and bears at one end against the yoke *g*. The other end of said lever is connected by a rod, *t*, with a treadle, (not shown,) whereby the rod *t* may be depressed and the yoke *g* with the roll *n* raised.

*u* represents a guide formed on the yoke and projecting downwardly therefrom to support the edge of the sole in advance of the rolls *n o*. The outer surface of the guide *u* is curved so that it conforms to the curvature which the sole assumes at the point where it is being bent, as shown in Fig. 4. The shafts *c f* are connected by the gears *e e'*, and may be rotated by the crank *d'*.

I do not limit myself to the described means for longitudinally adjusting the shaft *c*, nor for pressing the shaft *f* downwardly, as any other suitable devices may be employed to accomplish the same results.

I claim—

1. The combination of the supporting frame or standard, the longitudinally - adjustable shaft *c*, journaled therein, the vertically-movable shaft *f*, having a yielding movement, and  
 5 the frusto-conical rolls *n o*, mounted on said shafts, the smaller end of one of said rolls having a flange which overlaps the larger end of the other roll, the said rolls being made adjustable by the longitudinal adjustability of  
 10 the shaft *c* and by the yielding movement of the shaft *f*, as set forth.

2. The combination of the supporting frame or standard, the adjustable bearing *b* thereon, the shaft *c*, journaled in said bearing and adjustable therewith, the yoke *g*, pivoted to the supporting-frame and having a depressing-spring, the shaft *f*, journaled in said yoke, and

the rolls *n o*, mounted, respectively, on the shafts *f c*, one of said rolls having a flange, *n'*, overlapping the larger end of the other roll, as  
 20 set forth.

3. The combination, with the conical rolls *n o*, the former having a flange at its smaller end overlapping the larger end of the latter, and the guide *u*, formed to support the edge  
 25 of a sole while it is being presented to said rolls, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 16th day of April, 1888. 30

ANDREW EPPLER, JR.

Witnesses:

C. F. BROWN,  
 G. W. STATHAM.