

J. JENNINGS.

MACHINE FOR EMBOSsing RINGS.

No. 174,422.

Patented March 7, 1876.

Fig. 1.

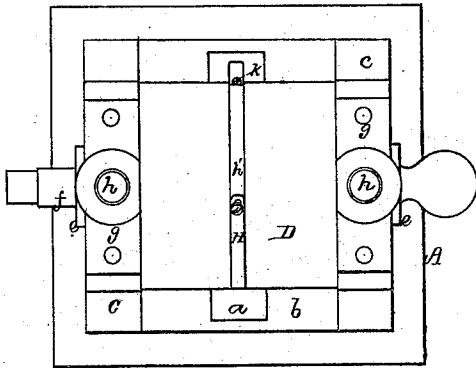


Fig. 2.

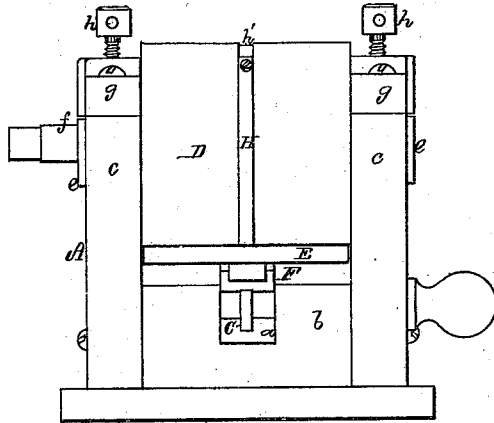


Fig. 3.

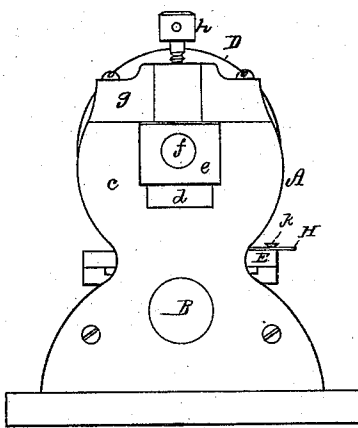


Fig. 4.

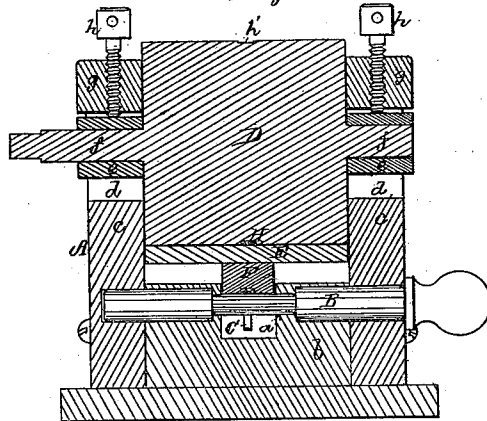
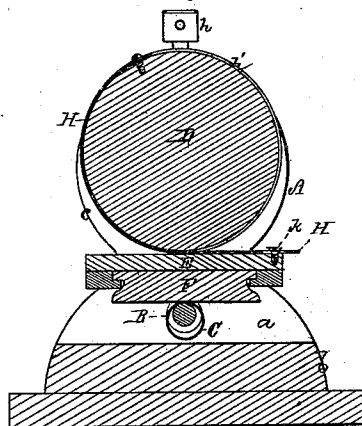


Fig. 5.



Witnesses.

S. W. Piper.

L. W. Miller.

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by his attorney

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UNITED STATES PATENT OFFICE.

JOHN JENNINGS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR EMBOSsing RINGS.

Specification forming part of Letters Patent No. 174,422, dated March 7, 1876; application filed January 21, 1876.

To all whom it may concern:

Be it known that I, JOHN JENNINGS, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Machinery for Embossing Rings; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a front elevation, Fig. 3 an end view, Fig. 4 a longitudinal section, and Fig. 5 a transverse section, of a ring-embossing machine embodying my invention.

In this machine a "finger-ring," while being embossed, is supported by and slides laterally around a pin, the ring being moved on such pin by the embossing-die, forced with great pressure against the ring, and moved forward over and with it by suitable means or mechanism. The pin, while the ring is upon it and in the act of being embossed, is stationary, or has no endwise or rotary movement.

To revolve a ring against an embossing die or tool by means of a rotary mandrel or spindle fitted to the ring is a difficult, if not impracticable, matter, for in the process of embossing the ring it becomes very much stretched, and, as a consequence, it increases in diameter and loosens its hold on the rotary mandrel. With a stationary pin and an embossing-die, as shown in the accompanying drawings, the enlargement of the ring does not prevent the proper action of the embossing-die.

In the drawings, A denotes the frame of the machine, having a groove, *a*, extending transversely through its base *b*. It also has a pin, B, inserted longitudinally through the base and transversely through the groove *a*, all being as shown, such pin being capable of being readily withdrawn from the base in order for a ring, C, to be placed on the pin and within the groove, the pin going through the ring. From the base two standards, *c c*, extend upward, and support in vertical spaces *d d*, as shown, boxes *e e*, to receive and sustain the journals *f f* of a pressure-roller, D, there being in the caps *g g* of the standards

two screws, *h h*, which, screwed through the caps and against the boxes, serve to force the roller downward against a slide-plate or die-carrier, E. This die-carrier E, arranged between the bed and pressure-roller, supports an embossing-die, F, suitably fixed or applied to it. The die, as shown, extends a short distance into the groove *a*, which serves to guide the die in its rectilinear movement over the ring. Furthermore, the pressure-roller is grooved in and around its middle part, as shown at *h'*, to receive an elastic metallic draft band or spring, H, which, fastened at one end to the roller, partially encompasses such roller. Near its other end the spring H has a slot or button-hole, *i*, made through it to catch upon a headed stud or button, *k*, extending from the carrier E near its rear edge.

This elastic spring answers two purposes—that is to say, while the pressure-roller is being revolved it winds around it such spring; and causes it to draw forward the die-carrier, so as to move the die over and cause it to emboss the ring. This having taken place, the spring, on being drawn from underneath the roller, will be set free, and by its elastic force and the drop of the roller will suddenly not only throw the die-carrier out of the frame A, but disengage itself from such die-carrier. Thus the spring, besides answering to advance the die-carrier, serves to automatically eject it from the frame, thereby saving the operative the necessity of drawing by his hand each die-carrier from the frame preparatory to removal of the ring-supporting pin from the frame, or in order to remove the embossed ring and substitute one to be embossed.

The mode of using the machine will be easily understood by jewelers or others skilled in embossing.

I claim—

1. In a machine for embossing rings, the combination of an embossing-die with a stationary or non-rotary spindle or pin for supporting the ring, and allowing said ring to turn or slide around the said pin or spindle while the die is in operation.

2. The combination of the movable non-rotary spindle or pin B, the die-carrier E, and

the pressure-roller D, all applied to a frame, A, and arranged to operate substantially as specified.

3. The combination of the slotted spring or elastic draft-band H and the button k with the pressure-roller D, the die-carrier E, and the movable non-rotary spindle or pin

B, applied to a frame, A, and all being arranged to operate substantially as described and set forth.

JOHN JENNINGS.

Witnesses:

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J. R. SNOW.