(No Model.)

C. R. SMITH.

MECHANISM FOR ROLLING FINGER RINGS.

No. 253,950. Patented Feb. 21, 1882.

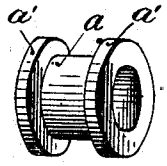


FIG. 1.

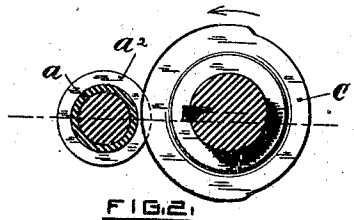


FIG. 2.

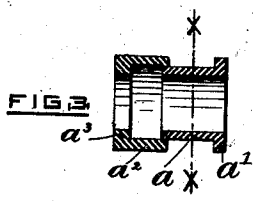


FIG. 3.

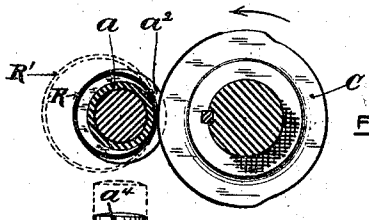


FIG. 4.

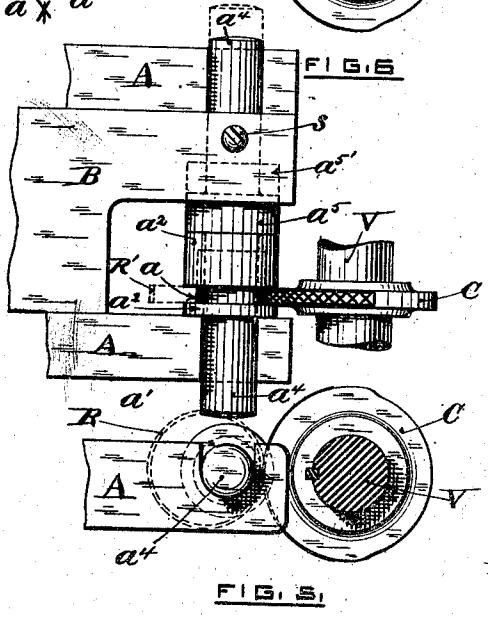


FIG. 5.

FIG. 6.

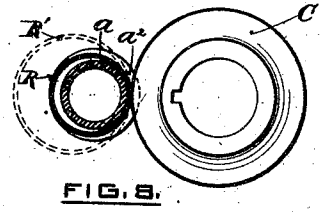


FIG. 8.

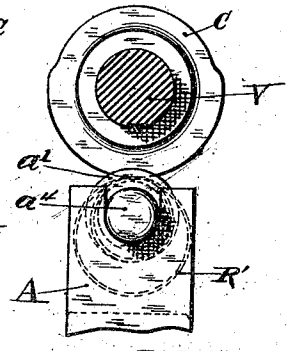


FIG. 7.

WITNESSES:

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MECHANISM FOR ROLLING FINGER-RINGS.

SPECIFICATION forming part of Letters Patent No. 253,950, dated February 21, 1882.

Application filed October 29, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. SMITH, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Mechanism for Rolling Finger-Rings, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to an improved method of engraving or chasing finger-rings, napkin-rings, and other analogous articles, and also for burnishing and finishing the same.

My invention consists of a metallic spool or sleeve, loosely fitted upon a stationary arbor, which serves to support the ring, &c., during the rolling and finishing process. By making this spool in two parts, rings of any practicable width and diameter may be rolled.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 represents a perspective view of a solid spool or sleeve. Fig. 2 is a transverse sectional view of the spool, together with the arbor upon which it revolves, and also the engraved roll. Fig. 3 is a vertical longitudinal sectional view of the spool when made in two parts. Fig. 4 is a vertical transverse section, on line x x of Fig. 3, of the spool with the arbor upon which it revolves, showing the position of the spool and roll when in the act of engraving or embossing the ring. Fig. 5 is an end elevation, showing the manner of supporting the end of the spool-arbor. Fig. 6 is a top view of Fig. 5, and also showing a portion of the holder in which the spool-arbor is adjustably secured. Fig. 7 represents a modification of Fig. 5, whereby the arbor and spool are adjusted vertically against the engraved roll. Fig. 8 represents my invention as used for finishing or burnishing rings by employing a plain roll.

a, Fig. 1, is the spool, made of hardened steel or other suitable material, having flanges a' formed thereon at each end, said flanges serving to laterally guide the ring when the latter is brought in contact with the figured or plain roll C. By dispensing with one flange of this spool and providing instead a sleeve, a^2, which also loosely fits the spool-arbor a^4 and is recessed to receive the spool a, a spool is produced which can be adjusted to fit rings of different widths. Also, when this sleeve or flange a^2 is removed a ring of smaller diameter may be placed upon the spool than could be if both flanges were solid, particularly as it is desirable that the flanges should be of considerable depth, in order that the ring may be better and more properly guided. The spool at a instead of being straight may be made in a concave form or other desirable shape. The arbor a^4 has formed thereon, and about midway of its length, a collar, a^5. This arbor is adjustable in the direction of its length, and is secured to the holder B by the set-screw s, and rests when in working position in the supports A.

B represents a movable holder, in which the arbor a^4 is mounted, and adjustably secured thereto by the set-screw s. Said holder is counterbored to receive the collar a^5 of the arbor.

A represents a carriage upon which the holder B may be pivoted, which also in turn may be mounted similarly to an ordinary lathe-carriage, and by means of a screw made to engage with the roll C, which revolves in stationary bearings; or, as in Fig. 7, the carriage A may be given a vertical reciprocating motion by means of a cam or other suitable mechanism.

The operation of transferring a design from the figured roll to the ring is as follows: The holder B is raised when the cut-away portion of the roll C is opposite the arbor a^4, when the ring is placed upon and between the flanges of the spool. The holder is then dropped into position and one revolution of the roll produces the design upon the ring. In practice it is found necessary to locate the spool-arbor a little below the center of the figured roll, as shown in Fig. 2.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the adjustable arbor a^4 and roll C, of the interchangeable spools a, substantially as shown and described.

2. The combination of the holder B, having the collared arbor a^4, adjustably connected

thereto, with the spool *a* and roll C, substantially as shown and described.

3. In a machine for embossing, engraving, and finishing rings, a metallic spool loosely fitted to a rigidly-supported arbor and adapted to guide the rings when in contact with the figured roll, substantially as shown and described.

In testimony whereof I have affixed my signature in presence of two witnesses.

CHAS. R. SMITH.

Witnesses:
CHARLES HANNIGAN,
GEO. W. REMINGTON.