G. KREMENTZ.

Dies for Manufacturing Plain Finger-Rings.

No. 140,423. Patented July 1, 1873.

Fig. 1

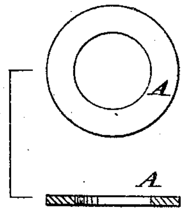


Fig. 5

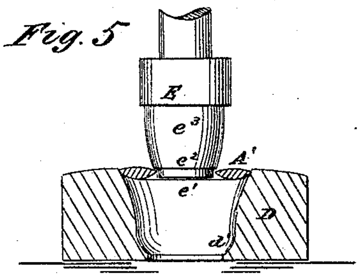


Fig. 2

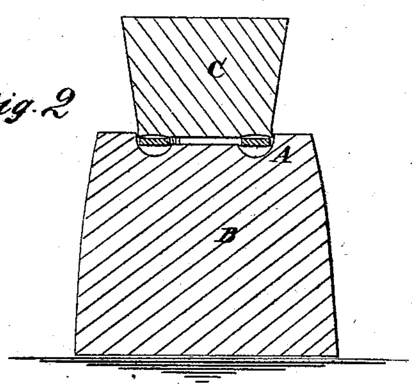


Fig. 6

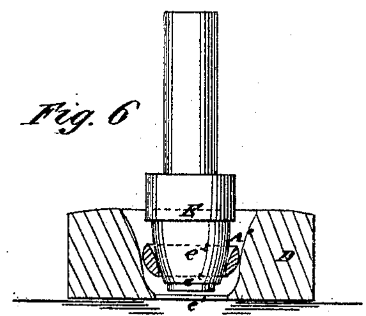


Fig. 3

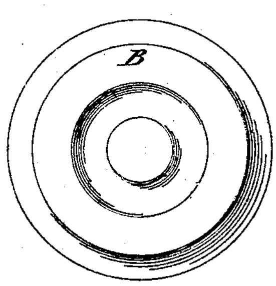


Fig. 7

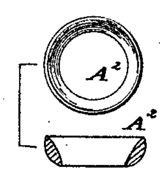


Fig. 8

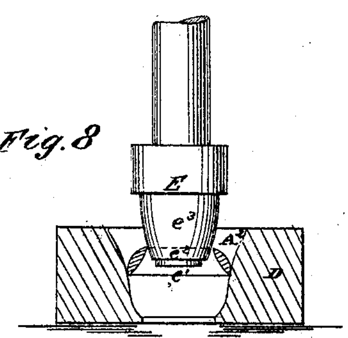


Fig. 4

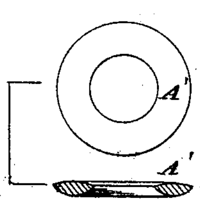
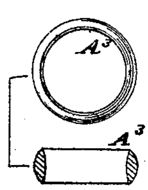


Fig. 9



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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

GEORGE KREMENTZ, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN DIES FOR MANUFACTURING PLAIN FINGER-RINGS.

Specification forming part of Letters Patent No. **140,423**, dated July 1, 1873; application filed April 12, 1873.

To all whom it may concern:

Be it known that I, GEORGE KREMENTZ, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Manufacturing Plain Finger-Rings, of which the following is a specification:

Figure 1 is a plan view and section of the ring-plate from which the ring is to be formed. Fig. 2 is a section of the dies for making the ring-plate half round. Fig. 3 is a face view of the lower die. Fig. 4 is a plan view and section of the ring-plate as it comes from the dies. Fig. 5 is a detail section of the dies for changing the half-round ring-plate into ring form. Fig. 6 is the same view as Fig. 5, but showing the ring in another position. Fig. 7 is a plan view and section of the ring as it comes from the dies shown in Figs. 5 and 6. Fig. 8 is the same view as Figs. 5 and 6, but showing the ring in another position. Fig. 9 is a plan view and section of the ring as it comes from the dies shown in Figs. 5, 6, and 8 after the second operation.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved mode of making plain finger-rings without a joint. The invention consists in the two sets of dies for forming a jointless ring from a solid ring-plate, as hereinafter fully described.

A represents a ring-plate of such a thickness as will give sufficient stock to form a ring of the desired weight. B is the lower or stationary die, in the face of which is formed a half-round circular groove. C is the upper die or drop, in the face of which is formed a very shallow circular groove. The ring-plate A is laid upon the face of the die B, and struck or pressed by the die C, forcing it into the groove of the die B, and making its lower side half round, as shown in Fig. 4, producing the half-round ring-plate A^1. D is a stationary die, which has a tapering cavity formed in it, made flaring at its upper end, and having a rounded shoulder, d', formed in its lower part. E is the moving die or plunger, the lower end e^1 of which is made of such a size as to enter the cavity of the half-round ring-plate A^1. The lower end e^1 of the plunger E has a rounded shoulder, e^2, formed around it to rest upon the inner edge of the half-round ring-plate A^1. The lower part e^3 of the plunger E, above the shoulder e^2, is made tapering or slightly conical, as shown in Figs. 5, 6, and 8.

The half-round ring-plate A^1 is laid, rounded side downward, in the flaring upper end of the cavity of the die D, and the plunger E brought down upon it, which forces it into the lower part of the cavity of the die D, giving it a somewhat conical form, and producing the conical ring A^2. The ring A^2 is placed, larger edge downward, in the cavity of the die D, and the tapering part e^3 of the plunger E forced into it, which forces the smaller edge of the ring A^2 outward, while the taper of the cavity of the die D forces its longer edge inward, and produces the ring A^3 convex upon its inner surface and half-round upon its outer surface, as shown in Fig. 9. The ring A^3 may now be finished, enlarged, and sized in the ordinary manner, or by tools made expressly for the purpose.

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

The pairs of dies B C and D E, for forming a jointless ring, A^3, from a solid ring-plate, A, substantially as herein shown and described.

GEORGE KREMENTZ.

Witnesses:

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