

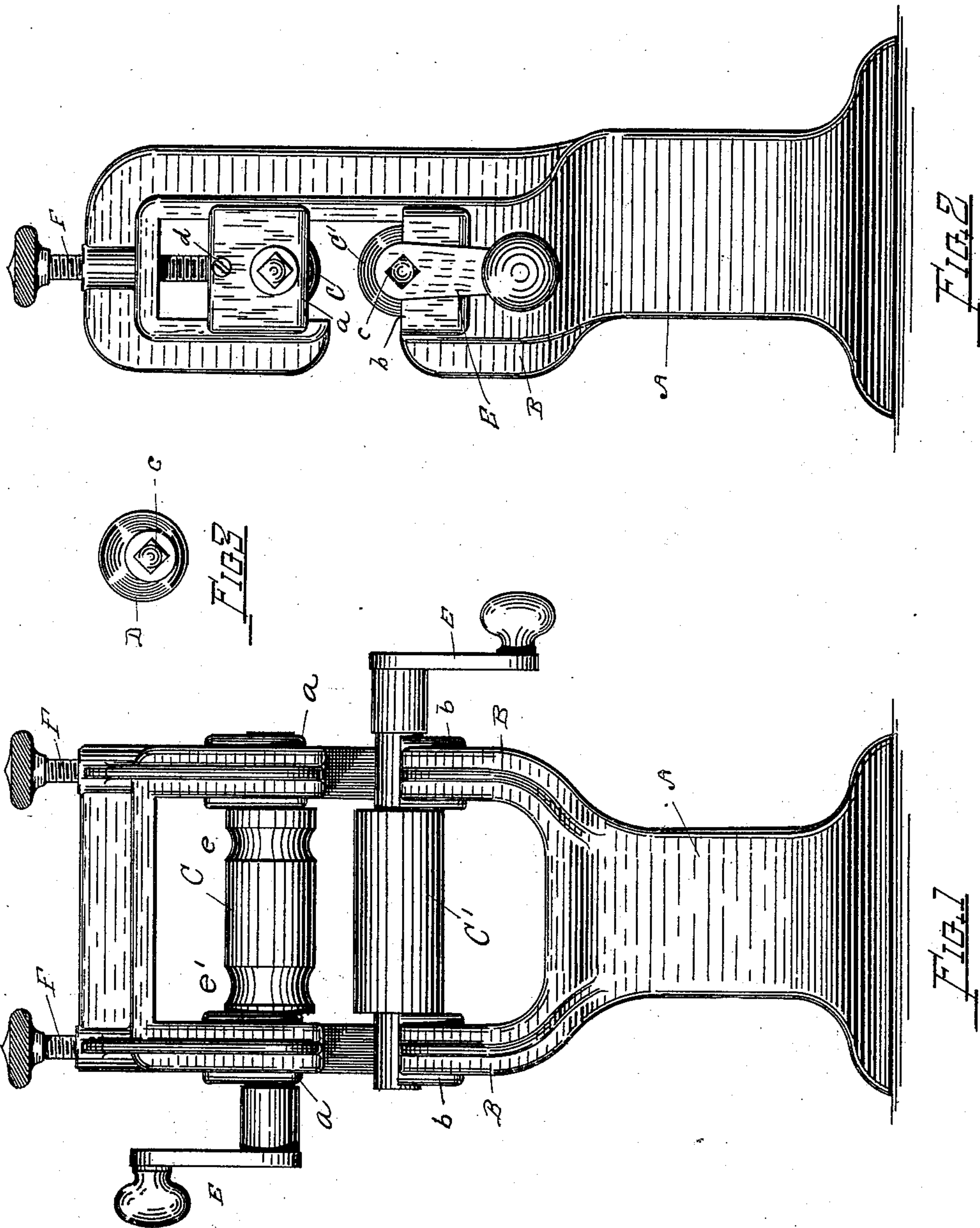
(No Model.)

J. C. ROCHELEAU.

JEWELER'S ROLLS FOR ENLARGING RINGS.

No. 361,084.

Patented Apr. 12, 1887.



WITNESSES:

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JEWELER'S ROLLS FOR ENLARGING RINGS.

SPECIFICATION forming part of Letters Patent No. 361,084, dated April 12, 1887.

Application filed June 10, 1886. Serial No. 204,775. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. ROCHELEAU, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Jewelers' Rolls for Enlarging Rings, of which the following is a specification.

My invention relates to rolls for jewelers' use for the purpose of rolling finger or other rings in order to stretch them or increase their size; and it consists in the several features, as hereinafter described, and specifically set forth in the claims.

The mechanism embodying my invention is illustrated in the accompanying drawings, in which—

Figures 1 and 2 are front and side elevations of the machine, and Fig. 3 is an end view of the eccentric roll.

Similar letters refer to similar parts in the several views.

A denotes an upright stand of suitable form to be placed upon a bench or table and support the rolls C C' in the machine, as illustrated in the accompanying drawings. A post, A, is divided at its upper portion into the upright sides B, to hold the journal-bearings of the rolls. Ways are formed in the upright sides to receive the blocks b b, which form the half-bearing of the lower roll, C', and also the blocks a a, holding the upper roll, C. A portion of the upright sides B B is removed in front of the ways to allow the roll C' to be removed, the upper part of the upright sides B B forming a housing for the upper roll-bearings. The upper roll-bearings are held in the sliding blocks a a, which are connected to the screws F by a screw, d, in each block entering a groove or neck in the screws F, by which the blocks are suspended from the upper part of the uprights B B by the screws F. The ends of the screws F rest on the solid portion of the blocks a a, so as to permit a pressure to be exerted on the ring placed between the rolls. At the opposite end of each roll I form a square shank, c, Figs. 2 and 3, to receive the cranks E.

The upper roll, C, I usually make with a plain cylindrical surface in its central section, and with the concave grooves e e' near its ends, of different sizes. The lower roll, C', is a plain

cylindrical roll, which is readily removed from its bearings to allow a ring to be placed upon it, when the roll is reinserted in its place and the roll C brought down upon the outer surface of the ring with considerable pressure by means of the screws F. A rotary or an oscillating motion is then imparted to the rolls C C' by the cranks E. In case a ring with a convex outer surface is to be enlarged, it is placed in one of the concave grooves e e', the two grooves of different curvature in the roll C being usually sufficiently adapted to all the different rings to be enlarged; but both the rolls C and C' may be changed for other rolls with such peculiar conformation of surface as the character of the work may require.

In many rings—such as those having a stone—the thickness of the ring varies, the portion opposite the stone being lighter and thinner and gradually increasing in thickness, in order to form a substantial setting for the stone. For rings of this character I use an eccentric roll, D, (shown in end view in Fig. 3,) in place of the roll C', and when the ring is placed between the rolls an oscillating motion is given to the rolls by the cranks, rolling the ring back and forth for a short distance between the thinnest portion and the stone, the distance between the rolls in different positions varying with the eccentricity of the roll D. A variety of rolls with different eccentricities may be employed adapted to the variety of rings to be enlarged.

While the specific construction and arrangement of the parts, as shown and described above, is in many respects preferable, I do not confine myself to them, as many changes may be made which would obviously come within the scope of my present invention.

I am aware that rolls for enlarging jewelers' rings have been heretofore made, in which the ring is placed on one roll and the opposite roll made to conform to the outer surface of the ring, and with connected means for bringing the rolls together and applying pressure to the ring. Such I do not claim, broadly. It has, however, been customary in such rolls to form the section adapted to receive the ring outside the roll-bearings, and the pressure which is brought to bear upon the ring is consequently applied only to that bearing nearest the ring.

In the rolls forming the subject of my present invention the rolls are adapted to receive the ring between the roll-bearings, enabling me to apply a downward pressure to the upper roll at both of the roll-bearings and upon each side of the ring to be enlarged. For this purpose I make the frame forming the housing of the rolls open, so the bottom roll may readily be removed from out its bearings to receive the ring. The upper roll I journal in boxes, which are suspended in ways by screws, by means of which the upper roll is raised or lowered. I also form the concave grooves in the upper roll at the ends next the bearings, leaving the remainder of the surface of the upper roll a plain cylindrical surface for such uses as may require a plain roll.

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

1. In a machine for enlarging jewelers' rings, the combination of a lower roll adapted to receive the ring to be enlarged, journaled at each end in half-boxes, and an upper roll for rolling the outside of the ring, with connected means, substantially as described, for bringing the rolls together and applying pressure to the ring,

and a supporting-frame forming a housing for the rolls, said frame being open to allow the lower roll to be removed, as and for the purpose set forth.

2. In a machine for enlarging jewelers' rings, the combination of a lower roll with a plain surface to receive the ring, an upper roll with grooves *e e'* next the roll-bearings and with a plain cylindrical central section, and a supporting-frame forming a housing for the rolls, said frame being open to allow the lower roll to be removed, substantially as described.

3. In a machine for enlarging jewelers' rings, the combination, with a frame forming a housing for a pair of rolls, of a lower roll to receive the ring to be enlarged, the surface of said roll being eccentric to its axis of rotation, and an opposing upper roll, said rolls being relatively journaled in the frame and having connected means, substantially as described, for applying pressure to a ring placed between the rolls, as and for the purpose set forth.

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Witnesses:

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