

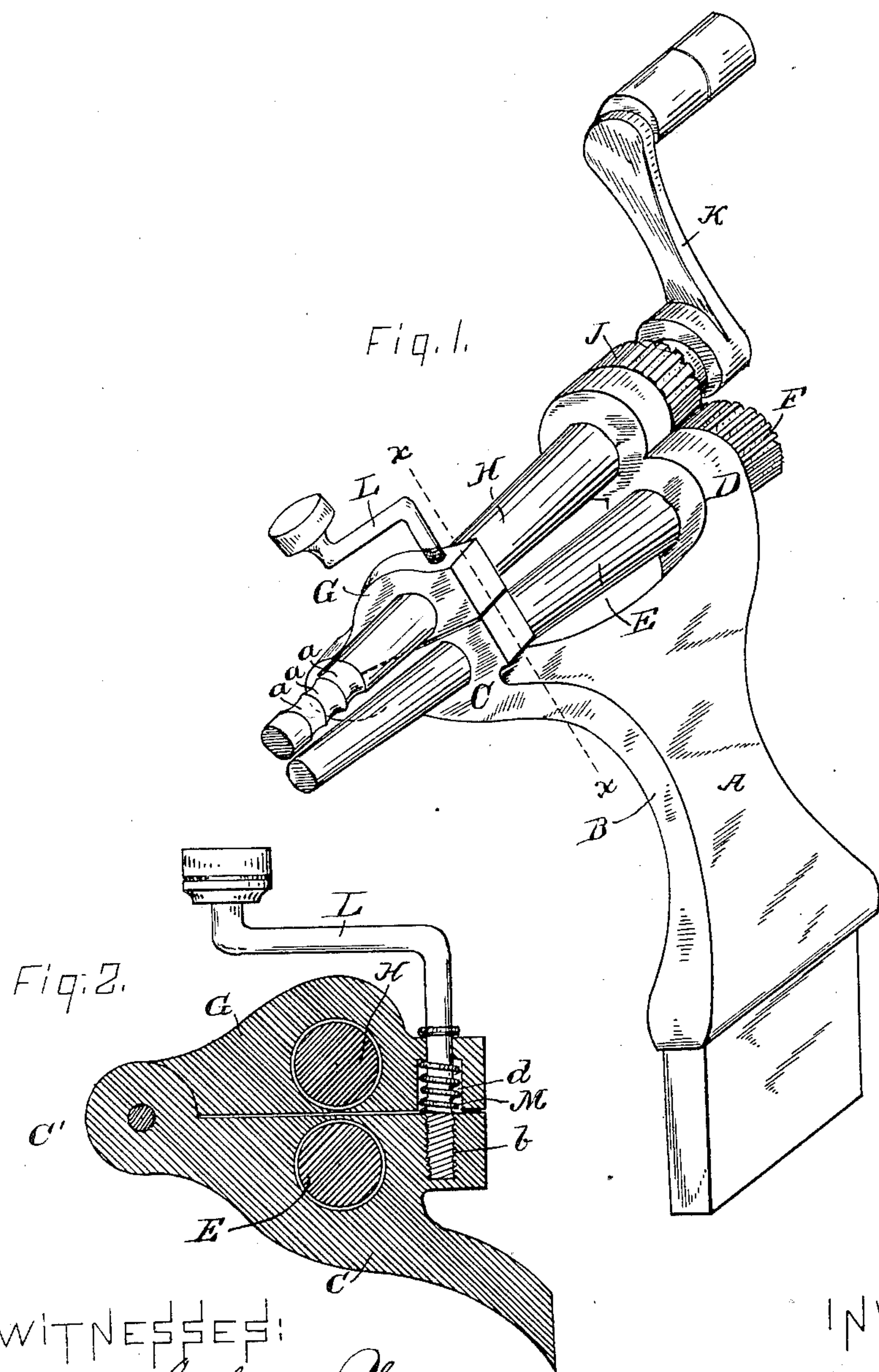
(No Model.)

N. CLARK.

MACHINE FOR ENLARGING FINGER RINGS.

No. 318,696.

Patented May 26, 1885.



WITNESSES:

Charles H. Roberts.

Cyrus Kehr.

INVENTOR:

Norman Clark

*by Manahan & Ward
attys*

UNITED STATES PATENT OFFICE.

NORMAN CLARK, OF STERLING, ILLINOIS.

MACHINE FOR ENLARGING FINGER-RINGS.

SPECIFICATION forming part of Letters Patent No. 318,696, dated May 26, 1885.

Application filed April 9, 1885. (No model.)

To all whom it may concern:

Be it known that I, NORMAN CLARK, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Machines for Enlarging Finger-Rings; 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 is a machine for enlarging finger-rings; and it consists of a metal frame adapted to be held in a vise, in which frame are journaled two tapering horizontal rollers, with means for adjusting the relative distance apart of such rollers. The stem of the frame is bent at its upper end slightly from the operator, so that the latter may more readily observe the relative position and operation of such rollers.

In the drawings, Figure 1 is an oblique elevation of a machine embodying my invention. Fig. 2 is a cross-section in the line *xx* of Fig. 1.

A is the frame of the machine, consisting of the stem B and the upwardly-extending jaws C and D.

In the jaw C and the lower portion of the jaw D is journaled the lower horizontal tapering roller, E, provided on its larger end with the rigidly-attached gear F. The jaw C is formed with an outward extension, C', to which is vertically hinged, Fig. 2, the bearing or box G, adapted to be adjustably superimposed on the jaw C.

In the upper end of the jaw D and in the bearing G is journaled the upper tapering roller, H. The rollers E and H are so journaled as to approach each other slightly toward their smaller ends. On the larger end of the roller H is rigidly affixed the gear J and crank K, and by means of the latter, through the engagement of the gears F and J, rotation is imparted to the rollers E and H. Around the roller H are formed the concaved annular recesses *a a*, to fit rings having a curved exterior. The rollers E and H are projected sufficiently through the bearing G and jaw C to receive rings of any size, and any desired number of recesses *a* may be provided. A screw, L, hav-

ing a bent or crank-like top, is pivoted vertically in the free end of the bearing G, and adapted to be fed into a threaded vertical hole, *b*, in the opposing face of the jaw C. The lower part of the seat *d* of the screw L is enlarged from the lower end thereof, and around the included portion of such screw is placed the coil-spring M, which latter has its upper bearing at the top of such enlargement and its lower bearing on the opposing face of the jaw C. By means of the crank-screw L the distance between the compressing-surfaces of the rollers E and H can be sufficiently varied to adjust the machine to rings of different thickness or the varying thickness of the same ring. The spring M operates to lift the free end of the bearing G as the screw L is withdrawn. The rolls E and H are highly polished, and necessarily have the same rotative velocity. The ring to be enlarged is placed on the lower roll, E, and the upper roll, H, forced thereon by means of the screw L, and such rolls revolved by means of the crank K, as aforesaid, when the ring is drawn to the required size, and left with such a high polish as seldom to require buffing. In the case of rings having sets therein the rolls are moved back and forth on the plain portion of such rings.

The mode heretofore adopted for enlarging finger-rings has been to cut them and insert a piece and hand-solder the joints, then file to a uniform surface, buff off, and polish. Another method has been to hammer or draw the ring on a steel mandrel to the required size, and then polish. These methods are tedious, do not always result in a uniform enlargement, and are not adapted to work of such delicate character.

My invention accomplishes the work quickly, uniformly, and in a finished and satisfactory manner.

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

1. In a finger-ring enlarger, the combination of the tapering rolls H and E, relatively journaled, and suitable mechanism for imparting to such rolls mutual rotation, substantially as shown, and for the purpose described.

2. The combination of the frame A, provided with jaws C and D, the bearing G, the rolls H and E, provided, respectively, with the gears

J and F, the crank K, and screw L, substantially as shown, and for the purpose specified.

3. The combination of the rolls H and E, provided, respectively, with the gears J and F, the crank K, jaws C and D, and adjustable bearing G, substantially as shown, and for the purpose mentioned.

4. In a finger-ring enlarger, the combination of the tapering rolls H and E, journaled in suitable relation to each other and provided, respectively, with the gears J and F, the frame A, the crank K, adjustable bearing G, screw L, and spring M, substantially as shown, and for the purpose described.

5. In a finger-ring enlarger, the combination of the roll H, provided with the annular recesses *a*, the roll E, and mechanism for mutually rotating such rolls, substantially as shown, and for the purpose specified.

6. The combination of the tapering rolls H and E, journaled adjustably in suitable mutual relation, and provided with means of rotation, substantially as shown, and for the purpose mentioned.

7. The combination of the tapering rolls H and E, mutually geared to have the same rotary velocity, and having their smaller ends projected beyond the jaw C and bearing G, so as to receive and uniformly enlarge closed rings, substantially as shown, and for the purpose named.

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

NORMAN CLARK.

Witnesses:

WALTER N. HASKELL,
W. S. STOCKING.