

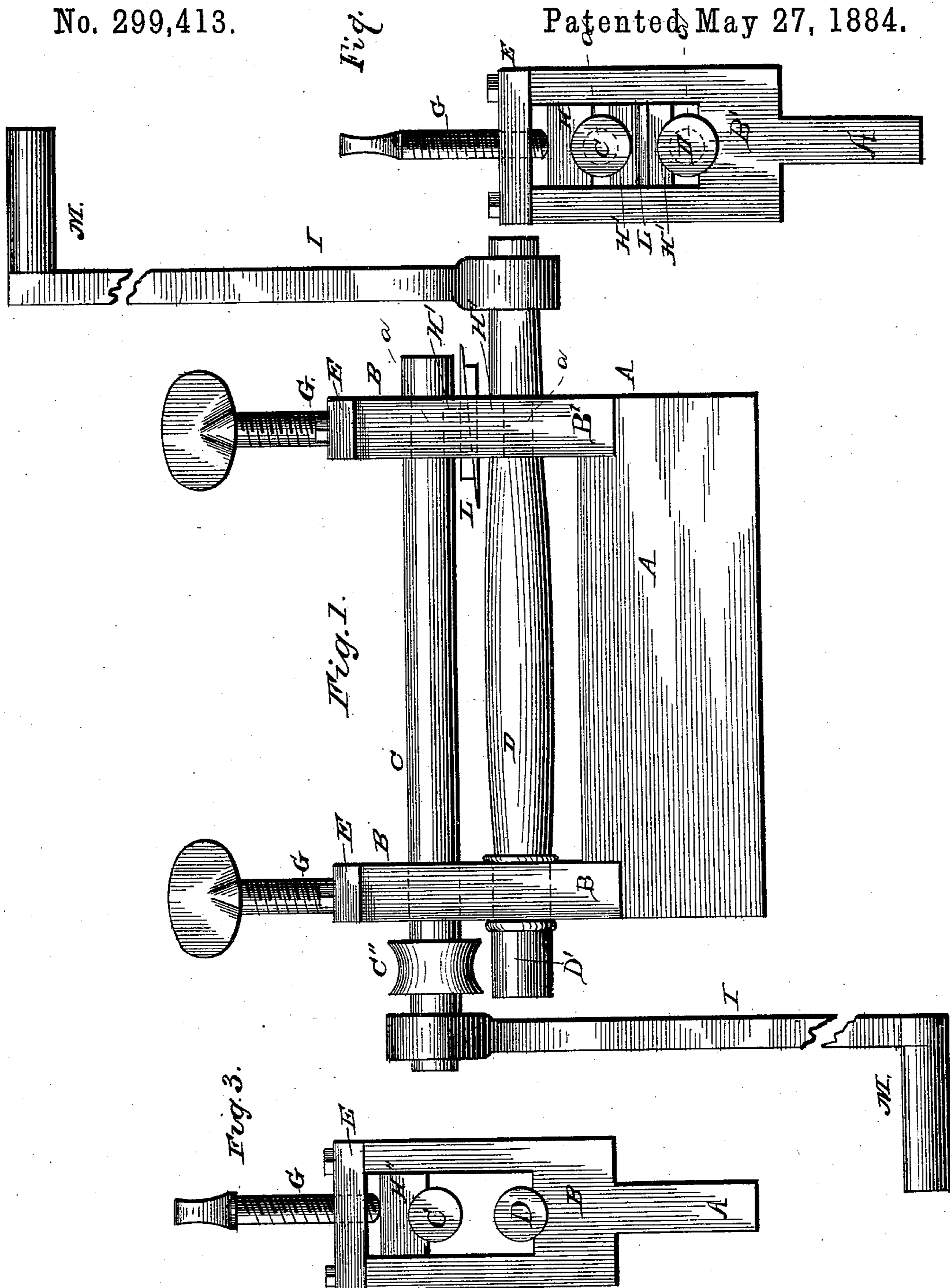
(No Model.)

J. G. MESSEMER.

DEVICE FOR EXPANDING FINGER RINGS, FERRULES, &c.

No. 299,413.

Patented May 27, 1884.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN GEORGE MESSEMER, OF LEBANON, OHIO.

## DEVICE FOR EXPANDING FINGER-RINGS, FERRULES, &c.

SPECIFICATION forming part of Letters Patent No. 299,413, dated May 27, 1884.

Application filed December 6, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN GEORGE MESSEMER, a citizen of the United States, and a resident of Lebanon, in the county of Warren and State of Ohio, have invented certain new and useful Improvements in Devices for Expanding Finger-Rings, Ferrules, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of my improved device for expanding finger-rings, ferrules, &c. Fig. 2 is a view of that end which is to the right hand in Fig. 1; and Fig. 3 is a similar view of the opposite end, showing the crank I and expansion-roll C' removed.

Similar letters of reference indicate corresponding parts in all the figures.

My invention consists in the detailed construction and combination of parts of a machine or device for expanding finger-rings, ferrules, &c., as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings, A represents the base-piece of the frame of the device, upon which are secured the uprights B B', the upper extremities of which are connected by means of cross-pieces E. In this frame are mounted the rolls C D, the end of the upper roll, C, which is to the right hand in Fig. 1 of the drawings, being journaled between two sliding blocks, H H', while the corresponding end of the lower roll, D, is journaled between a similar adjustable sliding block, H', and the lower part of the upright B', as shown.

Between the two central sliding blocks, H', are placed wedge-blocks L, for the purpose hereinafter specified. The end of the lower roll, D, which is to the left hand in Fig. 1, rests in a semicircular recess in the lower part of the upright B, while above the corresponding end of the upper roll, C, is placed a sliding adjustable block, H''. The manner in which the upper roll, C, is supported in its horizontal position will be hereinafter specified.

Upon that extremity of the roll C which is to the left hand in Fig. 1 is secured a removable roll, C'', which may be of any size or shape to adapt it to correspond with the size and shape of the ring being operated upon, while the corresponding end of the lower roll, D, is extended at D', to adapt it to receive the ring which is to be expanded. The rolls C D are operated by means of cranks I, having handles M.

Working in suitable screw-threaded apertures in the cross-pieces E are set-screws G, by means of which the pressure of the roll C'' upon the ring or ferrule being operated upon is regulated.

The manner in which my improved device is operated is as follows: The base-piece A is firmly secured in a vise or other suitable support, at a convenient distance from the ground. The ring which is to be enlarged is placed upon the lower shaft, D, at D', and the roll C'', of suitable shape, is rigidly secured upon the upper roll, C, immediately above the ring, and is brought in firm contact with the ring by means of the thumb-screws G. The upper roll, C, is supported by its roll C'', which bears upon the ring on the lower roll, D, the distance between the opposite or right-hand ends of the rolls being adjusted by means of the wedge-shaped blocks L, so as to keep the two rolls C D parallel with one another. The handles M are then grasped by the operator and the cranks turned in opposite directions, the ring being enlarged on the same principle that bars of iron are expanded at a rolling-mill.

In expanding a ferrule, the central blocks, H', and wedges L are removed, when the ferrule is placed upon the main portion of the shaft D, and the pressure applied by the thumb-screws G.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of my improved device for expanding finger-rings, ferrules, &c., will readily be understood without requiring further explanation. A plain ring can be expanded from one to three sizes without cutting or injuring the ring in the least, while a set-ring can be expanded from one to two sizes without injury by reversing the motion of the cranks at about three-fourths of a revolution. The rolls C D are recessed annularly

at *a*, to prevent them from sliding in the frame of the device while a ring is being operated upon.

Having thus described my invention, I claim  
5 and desire to secure by Letters Patent of the United States—

The combination, in a device for expanding  
finger-rings, ferrules, &c., of the shaft C, hav-  
ing a crank, I, and handle M, and provided  
10 with a removable roll, C', shaft D, having  
crank I, handle M, and roll D', sliding blocks

H H' H'', wedge-blocks L, and thumb-screws  
G, the rolls being outside the housings, as and  
for the purpose shown and set forth.

In testimony that I claim the foregoing as 15  
my own I have hereunto affixed my signature  
in presence of two witnesses.

JOHN GEORGE MESSEMER.

Witnesses:

M. A. JAMESON,

WALTER S. DILATUSH.