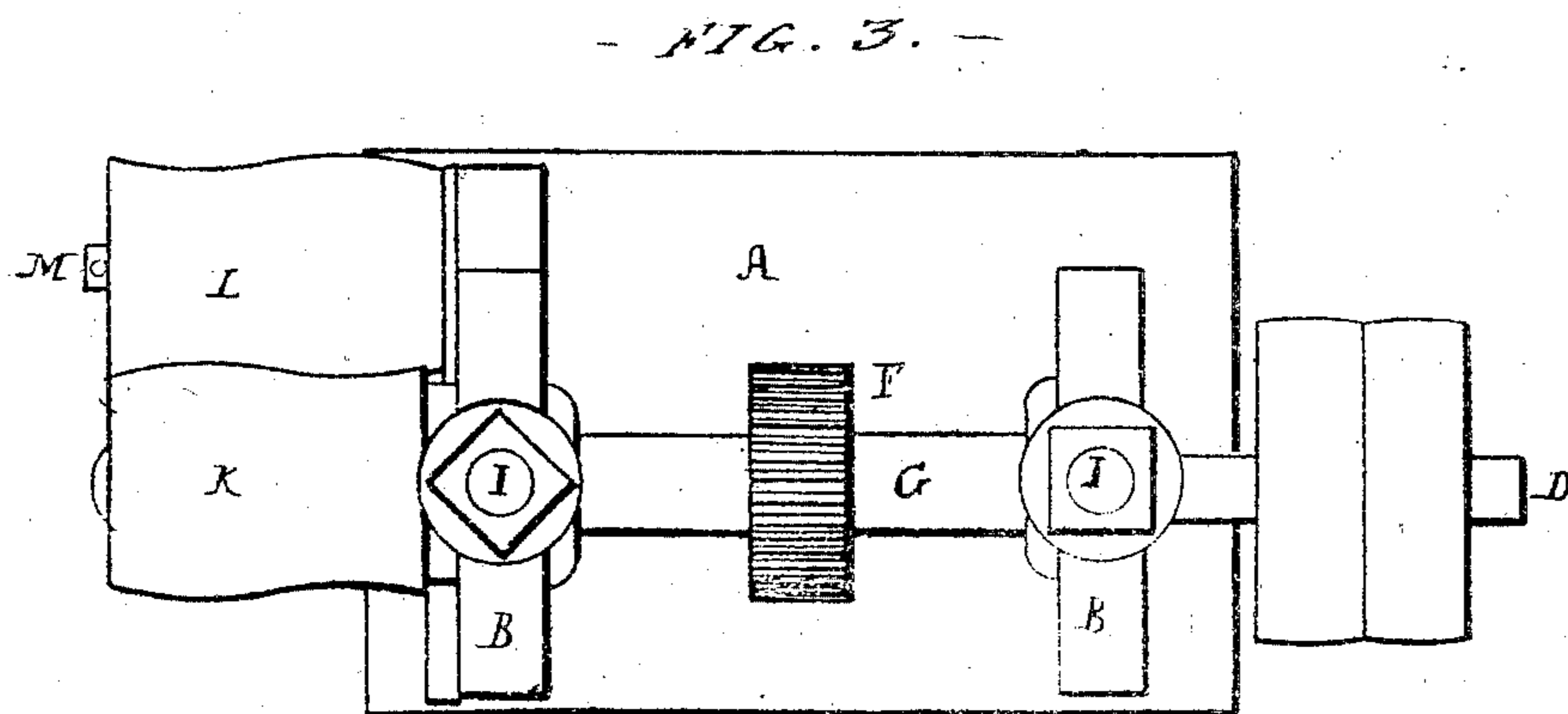
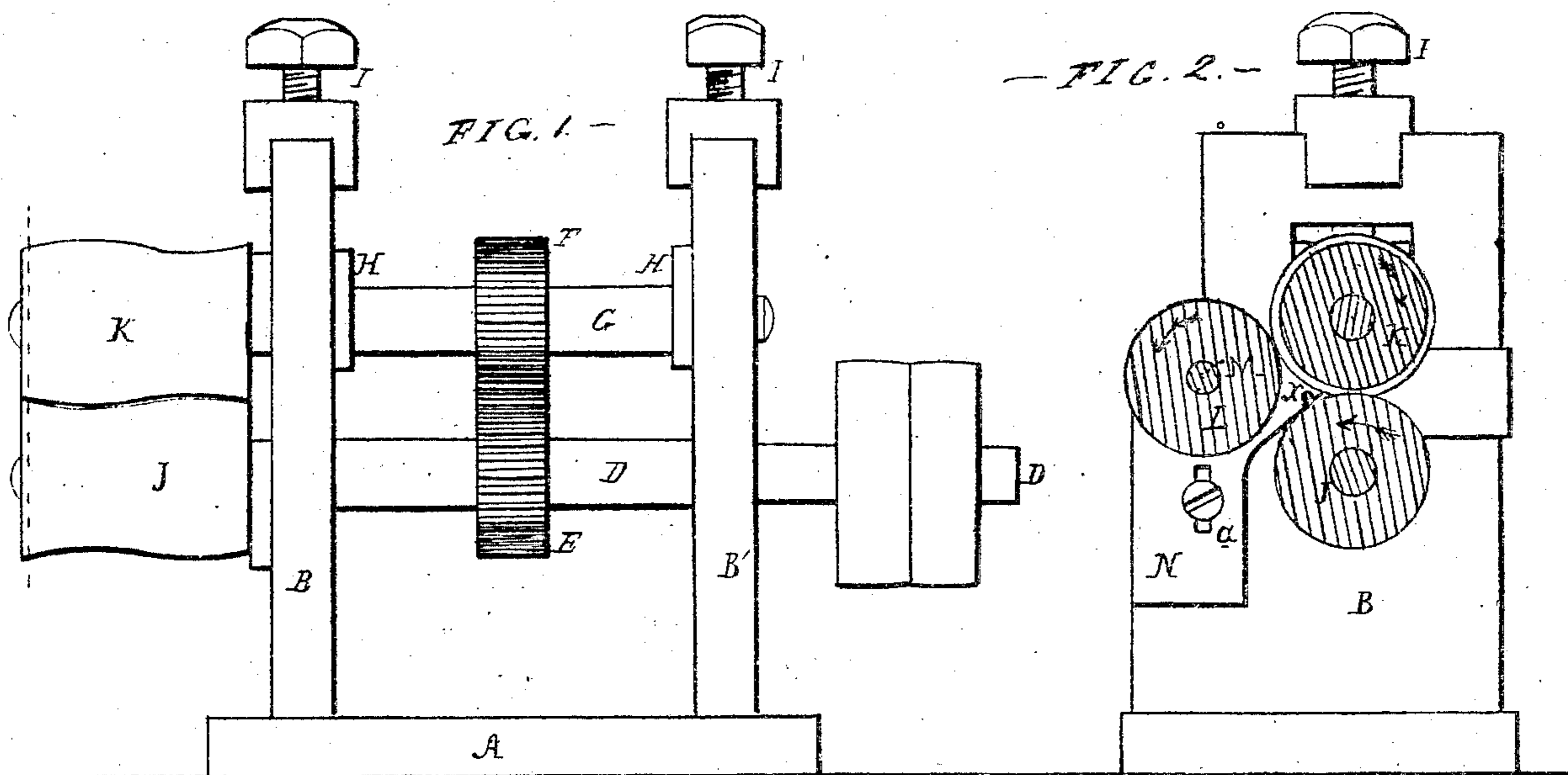


# *Lockwood & Howson, Collar Machine.*

No 49,952.

Patented, Sept. 12, 1865.



Witnesses { H. C. Merrick  
Charles V. Fisher

Henry Howson  
Wm. E. Lockwood  
by their Attys  
Henry Howson

# UNITED STATES PATENT OFFICE.

WM. E. LOCKWOOD AND HENRY HOWSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO WM. E. LOCKWOOD, OF SAME PLACE.

## IMPROVEMENT IN APPARATUS FOR SHAPING PAPER COLLARS.

Specification forming part of Letters Patent No. 49,952, dated September 12, 1865.

*To all whom it may concern:*

Be it known that we, WILLIAM E. LOCKWOOD and HENRY HOWSON, of Philadelphia, Pennsylvania, have invented an Improvement in Machinery for Shaping Paper Collars; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Our invention consists in certain peculiarly-shaped rollers, arranged and operating substantially as described hereinafter, in order to impart to paper collars the desired shape, both laterally and longitudinally, at one operation.

In order to enable others skilled in the art to make and use our invention, we will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a side view of our improved machine for shaping paper collars; Fig. 2, a transverse section, and Fig. 3 a ground plan.

Similar letters refer to similar parts throughout the several views.

A is the base, and B and B' are the two standards or frames of the machine, in which turns a shaft, D, having a cog-wheel, E, gearing into a similar wheel, F, on the shaft G, the latter turning in boxes H H, which are arranged to slide in vertical openings in the frames, the ends of set-screws I I, which pass through these frames, bearing on the tops of the said boxes.

To the shaft D is secured a roller, J, and to the shaft G a roller, K, the rollers being adapted to each other, and being of the shape shown, or other shape best adapted for imparting the desired lateral bend to the collar. Another roller, L, adapted to the roller K, is ranged to turn freely on a pin, M, secured

plate, N, which is so attached to a frame, B, by means of a set-screw, a, that it can be readily adjusted.

The several rollers bear the relative position to each other shown in Fig. 2, and are arranged to revolve in the direction pointed out by the arrows. The collar to be shaped is passed endwise between the rollers J and K, and is directed by a rod, z, upward, so as to pass between the rollers K and M. In thus passing between the rollers the collar is bent laterally in conformity with the shape of the rollers, and this shape is such that the lateral bend imparted to the collar will be that best adapted to the shape of the wearer's neck.

Independently of the lateral shaping of the collar it must of necessity be bent longitudinally, owing to the relative position of the rollers, so that by passing the collar between the latter in the manner described the proper shape laterally and longitudinally must be imparted to it at one operation.

The rollers may be made hollow, and may be heated by the introduction of steam or by suitable heated irons, so that the shape imparted to the collar may be more permanent.

We claim as our invention, and desire to secure by Letters Patent—

The three rollers J, K, and M, the said rollers being of the form substantially as illustrated, and being arranged and operating in the manner described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM E. LOCKWOOD.  
HENRY HOWSON.

Witnesses.

CHARLES E. FOSTER,  
W. J. R. DELANY.