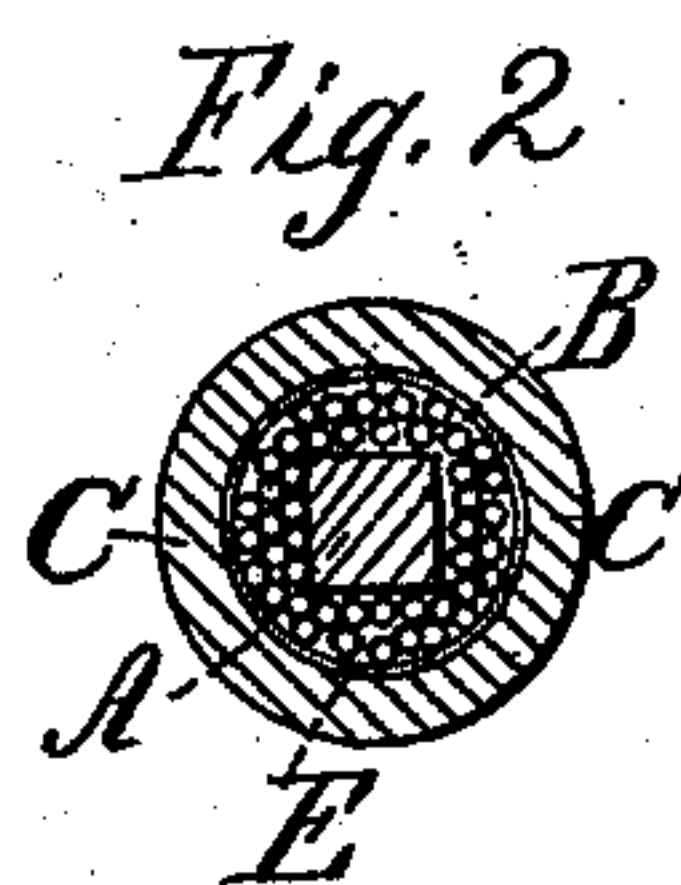
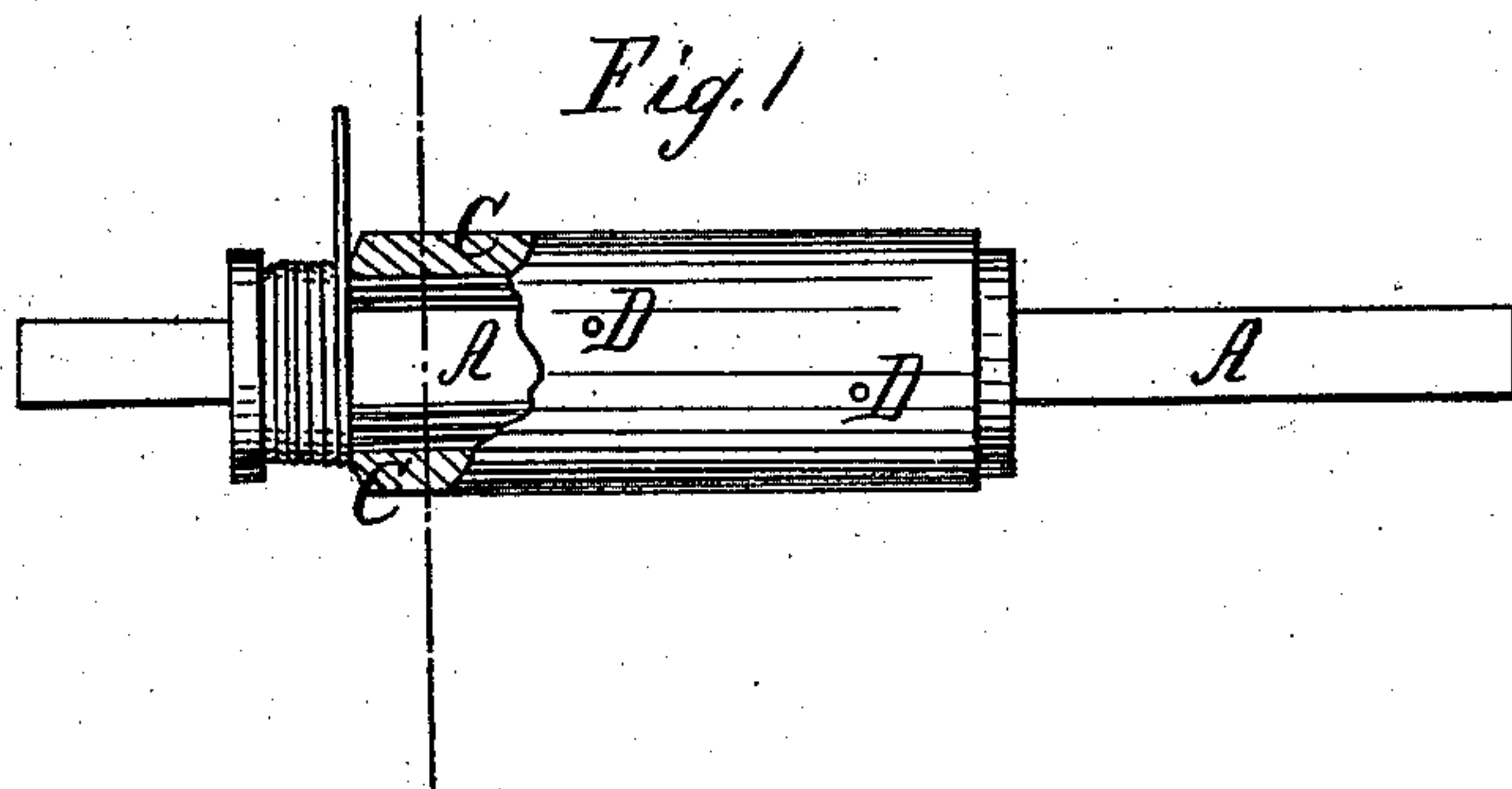


A. Magowan,

Wringer Roll,

Nº 83,518,

Patented Oct. 27, 1868.



Witnesses

J. A. Ellsworth
F. C. Beach.

Inventor

A. Magowan
by *Henry H. Coe*
Attorney.

UNITED STATES PATENT OFFICE.

ALLEN MAGOWAN, OF BOSTON, MASSACHUSETTS.

IMPROVED WRINGER-ROLLER.

Specification forming part of Letters Patent No. **83,518**, dated October 27, 1868.

To all whom it may concern:

Be it known that I, ALLEN MAGOWAN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Elastic Roller; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

Figure 1 represents a side view, partly in section, of my improved elastic roller. Fig. 2 is a transverse section of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to produce a roller for wringers and other machinery on which the elastic will not slip on the mandrel, and which will be also durable and soft.

The invention consists in forming an elastic core by dipping a string into liquid raw india-rubber, and in then winding the string thus saturated around the square or triangular mandrel, with a longitudinal filling, to complete the outer rounding of the mandrel. Thus a strong elastic core is produced, which will not slip on the mandrel, especially if projecting arms are formed on the mandrel.

The invention also consists in the use of longitudinal tubing for rounding the roller on a square mandrel.

A in the drawing represents a mandrel, which may be square, triangular, or rectangular in its transverse section. Around it is wound a string, B, which has been saturated with raw rubber, and which serves to produce

the inner part of the elastic roller. The outer rounding of the mandrel is produced by inserting longitudinal strips, tubes, or strings E of rubber between the windings of the string B, as indicated in Fig. 2. Around these layers of string is then cast raw rubber C, to form a smooth soft outside.

When the roller is thus far finished it is vulcanized in the ordinary or suitable manner, and is then ready for use.

The string, being drawn tight around the mandrel, will, especially with its elastic coating, adhere so firmly that the elastic will not slip on the mandrel. Still, to keep it quite secure, arms D D may project from the shaft.

I am aware that elastic rollers have been formed in which the rubber covering was prevented from slipping by winding a round metallic core with strips of cloth or with strings; but as this construction forms no part of my invention I do not claim it.

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

The elastic roller having its core formed by winding the square mandrel A, having radial arms D, with a string or cord steeped in liquid raw india-rubber, an outer rounding filling composed of longitudinal strips E being interposed between the winding-string and mandrel, as herein described, for the purpose specified.

ALLEN MAGOWAN.

Witnesses:

H. P. DUNBAR,
JACOB D. JOSLIN.