

(No Model.)

O. CLEVELAND.

METHOD OF AND MACHINE FOR ORNAMMENTING RODS OF WOOD.
No. 254,535.

Patented Mar. 7, 1882.

Fig. 2.

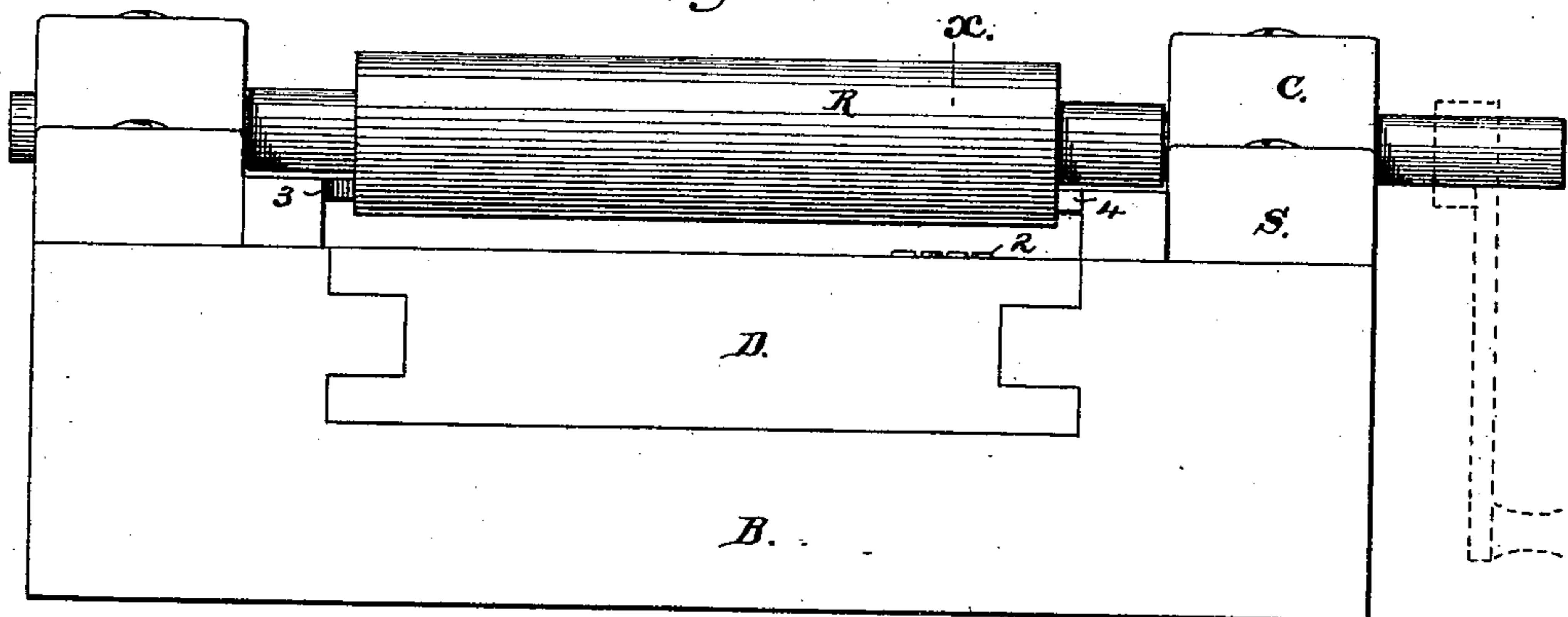


Fig. 1.

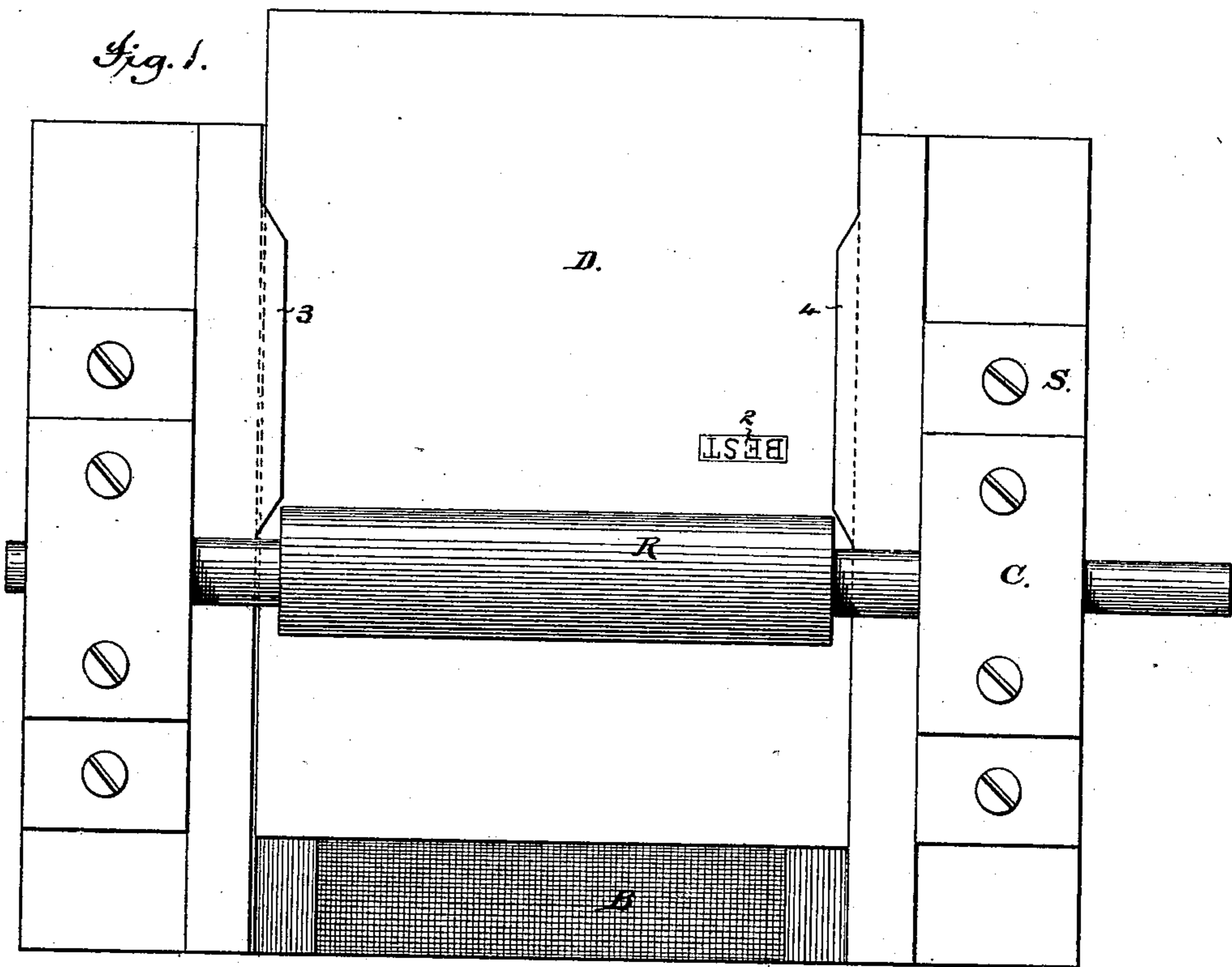
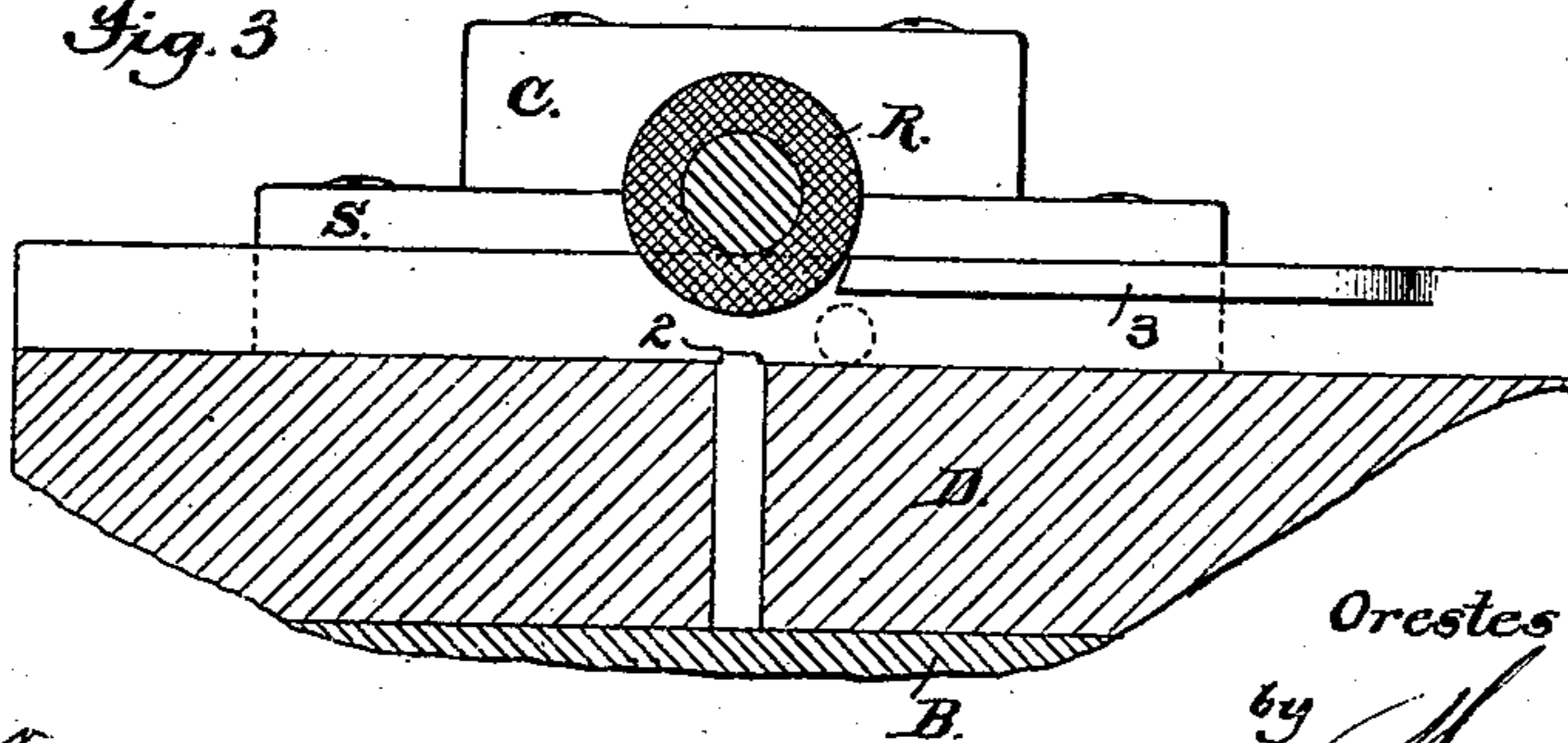


Fig. 3.



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ORESTES CLEVELAND, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO E. F. C. YOUNG, RECEIVER OF THE JOSEPH DIXON CRUCIBLE COMPANY, OF SAME PLACE.

METHOD OF AND MACHINE FOR ORNAMENTING RODS OF WOOD.

SPECIFICATION forming part of Letters Patent No. 254,535, dated March 7, 1882.

Application filed April 16, 1881. (No model.)

To all whom it may concern:

Be it known that I, ORESTES CLEVELAND, a citizen of the United States, residing in Jersey City, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Machines for Ornamenting Rods of Wood, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 In said drawings, Figure 1 represents a plan view of a machine embodying one form of the improvements, of which Fig. 2 represents an end elevation and Fig. 3 a longitudinal sectional elevation.

15 The object of this invention is to produce ornamental or other designs upon rods of wood by compressing or indenting portions of their surface; and the invention consists in the method, and also in certain features of the apparatus, by which such designs are produced, all of which will be hereinafter fully explained, and pointed out in the claims.

20 In order to a clear understanding of the same, a simple form of embodiment of the invention will first be described, and then modifications of the same will be explained.

25 The apparatus illustrated consists of a supporting bed-plate, B, upon which is mounted a die-bed, D, furnished at an appropriate point with a die, 2, the form of which in this instance is a number of letters. This die-bed is here shown as capable of sliding in ways in the bed-plate B, and is so arranged that the pattern or die (when carried by it) may be properly adjusted beneath the pressure-roller R, which is mounted above it, and so as to turn in journal-bearings, each consisting of a pillow-block, S, and cap C. This roller is supposed to be situated a proper distance above the bed-plate D to suit the dimensions of the rods to be operated upon, and is clothed with rubber or other similar elastic material capable of rendering its surface yielding, so that when the semi-rigid wooden rod is passing between its surface and the die or pattern such an elastic pressure may be exerted upon the rod that while the pattern of the die is clearly and smoothly impressed or compressed into the surface of the wooden rod no breakage or marring of its surface is effected.

The rods, which may be either circular or 50 polygonal in cross-section, may be fed in any manner to the machine, as between guides 3 4 that overhang the bed, and such others as may be necessary to direct them properly into the machine. As they come into contact with the 55 periphery of the roller R they are rolled by it underneath its surface and between it and the bed D, and will of course be carried into contact with the die 2, passing over which they will receive the impress of its form upon such 60 portions of their surface as the dimensions of such die are adapted in size to cover.

The elasticity of the roller must of course be so regulated that it will afford a pressure sufficient to cause the die to so impress the fibers 65 of the wood as to bring out the form of the pattern in all of its completeness of detail, and yet avoid such a pressure as will break the fibers of the rod and thus mar the beauty of the work.

If the pattern to be impressed is in the form 70 of a single line extending longitudinally of the rod, then a die of the form shown will be used, and the die-bed may be stationary, the rod being rolled over the die by the feeding action of the roller; but if the entire surface of the rod 75 is to be covered, or the design is to extend over any considerable part of the circumference of the rod, then the pattern will of course be made of the proper dimensions, and the bed will be caused to slide by means commonly employed to effect that result. It is to be understood, of course, that in this case the bed will slide, while the rod is being operated upon, in a direction contrary to that in which the roll 80 is rotating, and will be so timed in its movements as to keep the rod beneath the roll until it has come into contact with the whole surface of the die.

It is not necessary that the die should be carried by the bed. It will readily be seen that 90 the operation will be practically the same if the die is placed upon the roller and the bed provided with an elastic or yielding surface.

The bed may be rotary when continuous patterns are to be produced, and even when lines 95 extending partially or throughout the longitudinal extent of the rod constitute the ornament; but in the latter case duplication of the

pattern or complex feeding mechanism, or both, may be required.

5 The elastic relation between the roller and the bed, without regard to which carries the die or pattern, may be accomplished as has been described, or by mounting the roller in boxes having elastically-seated cup-plates or pillow-blocks. The die-supporting bed may be elastically seated, or the die itself may rest upon
10 an elastic cushion or cushions, any or all of which modifications are to be understood as within the scope of this invention.

What is claimed is—

1. The herein-described method of impress-
15 ing designs upon rods of wood, the same con-

sisting in rolling said rods, while subjected to a yielding pressure, across the face of a die bearing the desired design, substantially as described.

2. The combination, with the roller and die 20 or pattern, one of which is elastically seated, of the bed D and overhanging guides 3 4, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing wit- 25 nesses.

ORESTES CLEVELAND.

Witnesses:

T. H. PALMER,
GEO. H. GRAHAM.