

(No Model.)

C. L. DAVIS.
MACHINE FOR ORNAMENTING WOOD OR OTHER COMPRESSIBLE MATERIAL.

No. 451,391.

Patented Apr. 28, 1891.

Fig. 1.

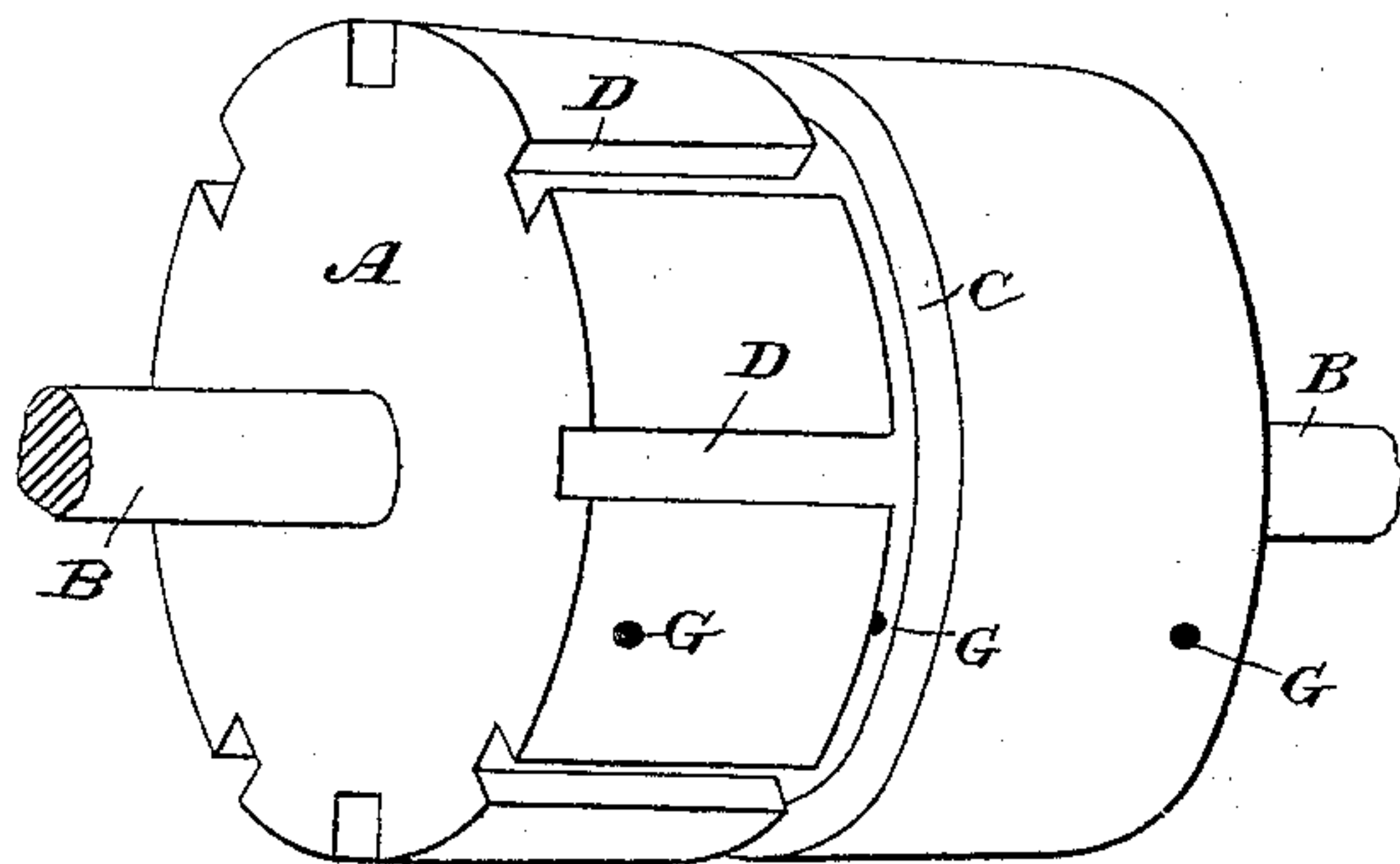


Fig. 2.

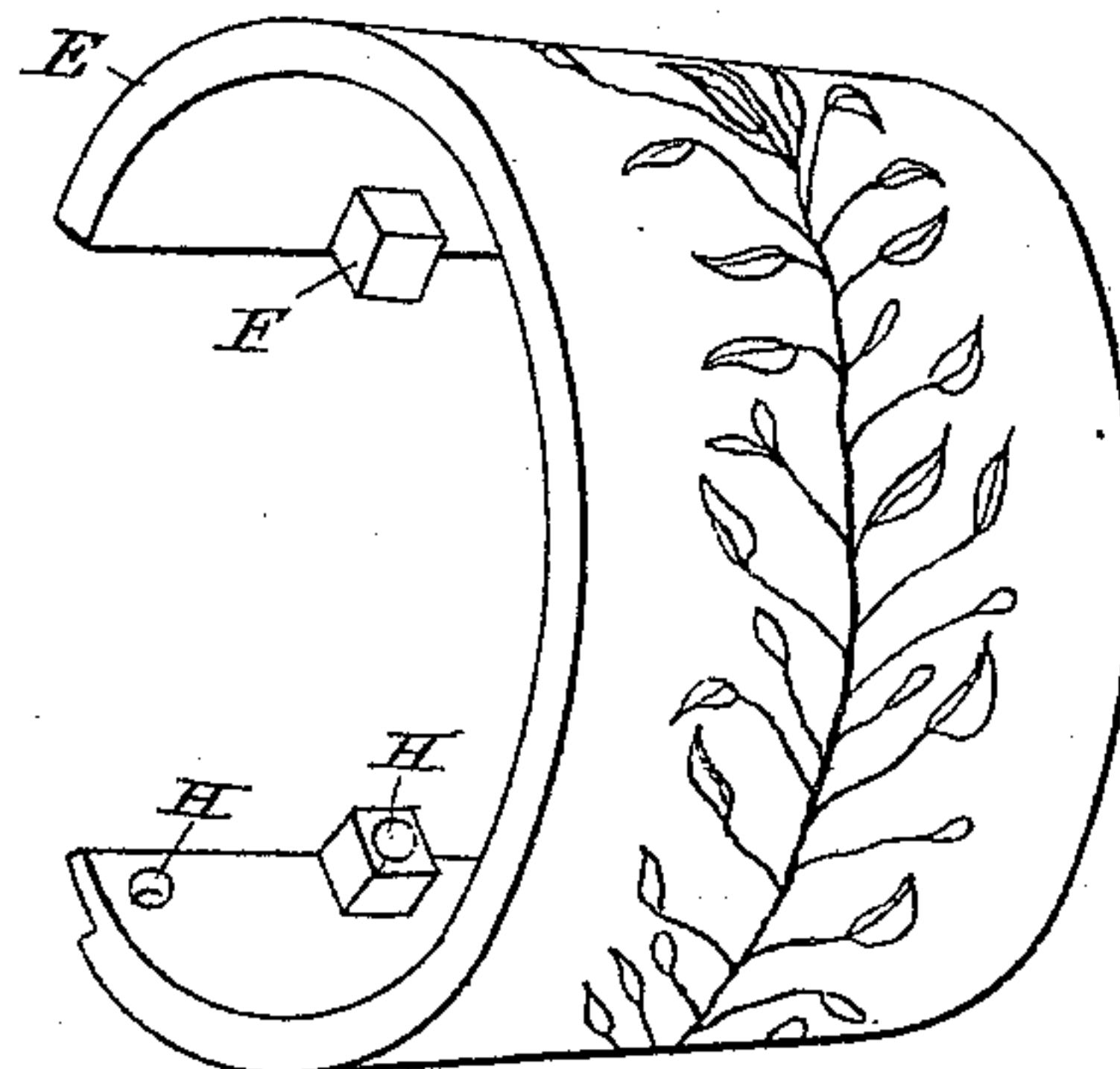


Fig. 3.

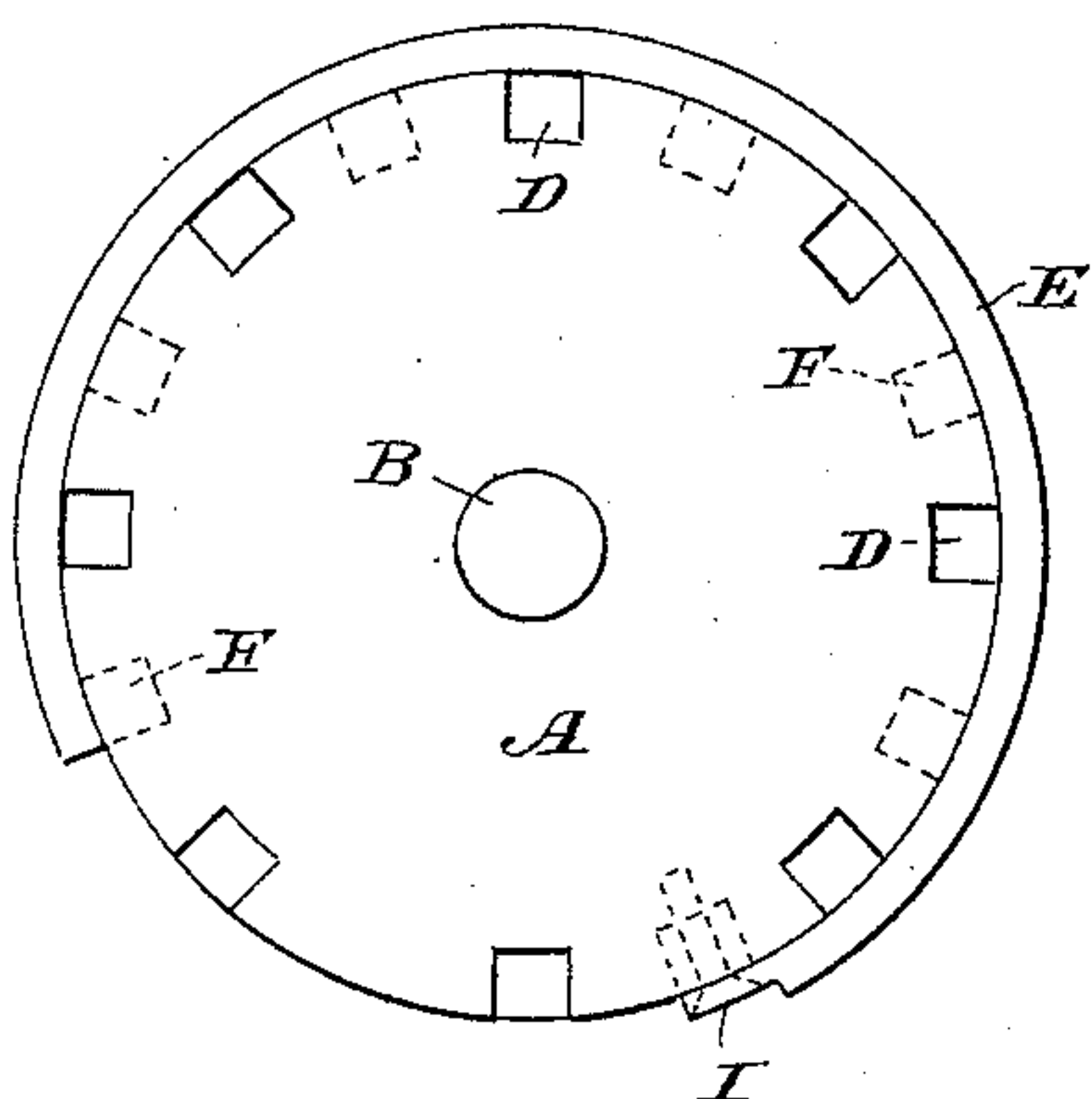


Fig. 4.

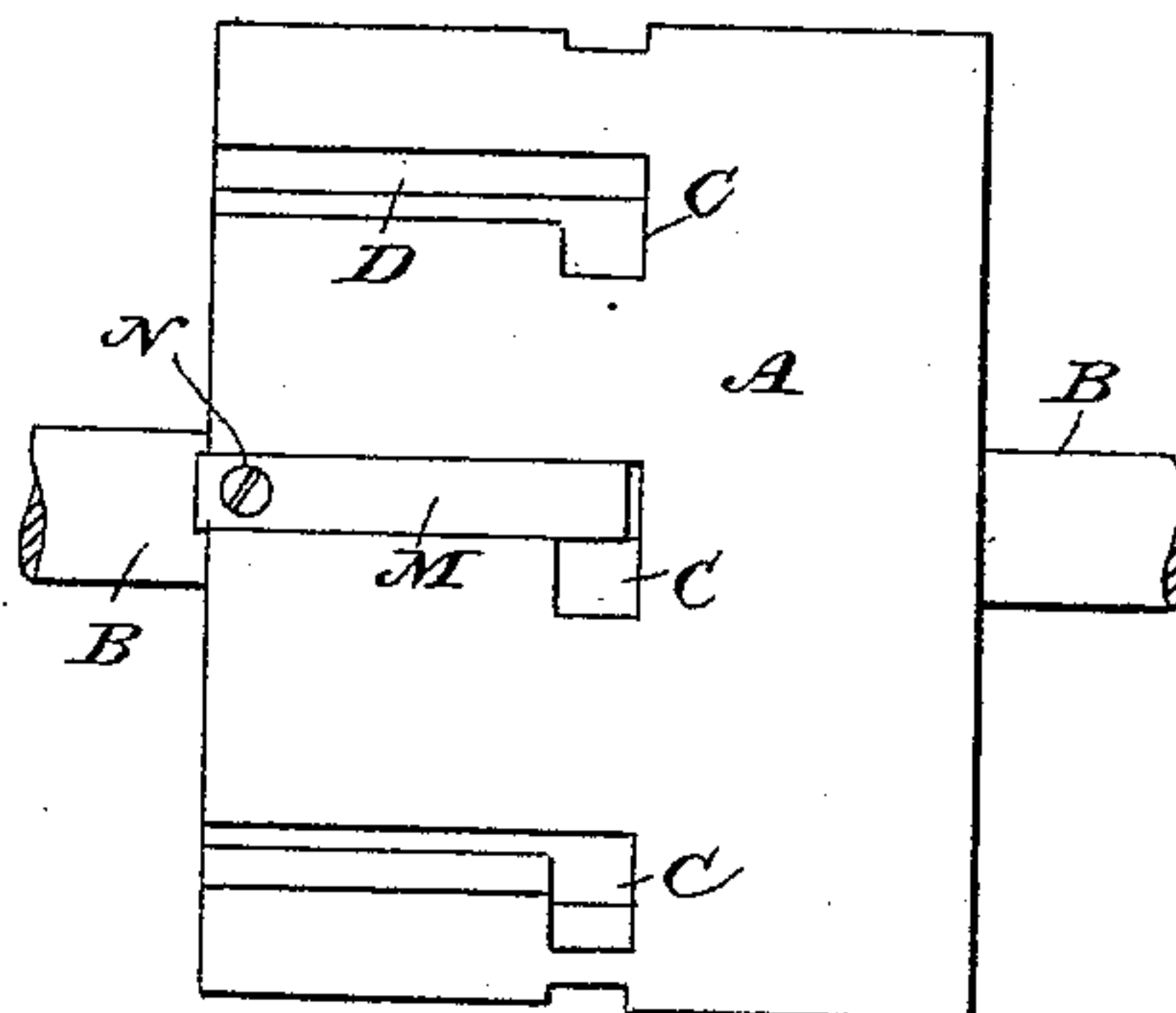
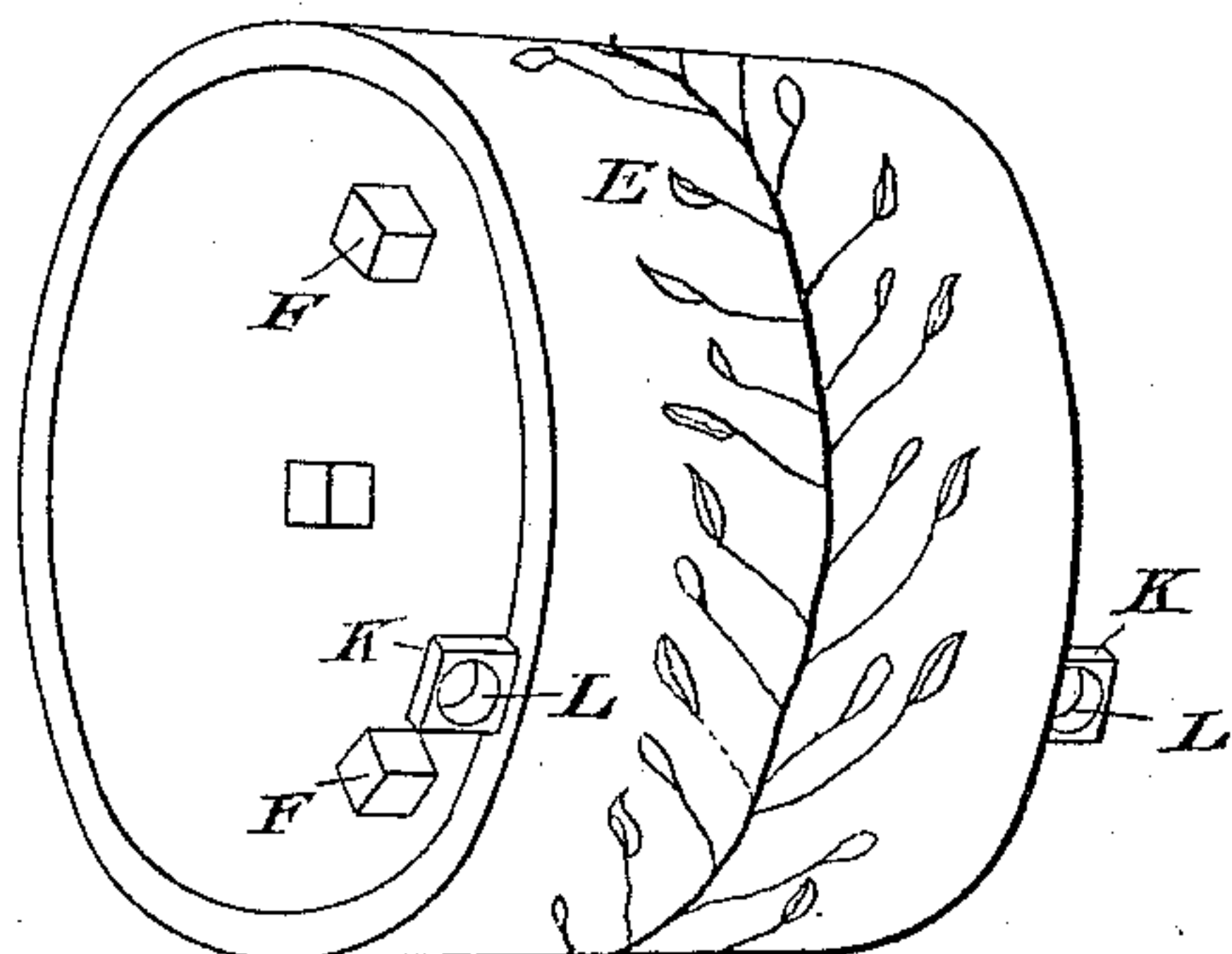


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CLARENCE L. DAVIS, OF NEW YORK, N. Y., ASSIGNOR TO BENJAMIN HASKELL,
OF SAME PLACE.

MACHINE FOR ORNAMENTING WOOD OR OTHER COMPRESSIBLE MATERIAL.

SPECIFICATION forming part of Letters Patent No. 451,391, dated April 28, 1891.

Application filed August 6, 1890. Serial No. 361,199. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE L. DAVIS, a citizen of the United States of America, residing at the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Machines for Ornamenting Wood and other Compressible Material, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which similar letters of reference designate like or equivalent parts wherever found throughout the several views.

The object of this invention is to produce a die-cylinder simple in construction and efficient in operation on which may be placed a sectional or complete circular die, which is easily placed and firmly held in position upon the cylinder by means of transverse and circumferential grooves or slots formed in the outer surface of the cylinder and corresponding projections or lugs formed on the inner surface of the die.

I am aware that die-cylinders having a circumferential groove have heretofore been made and that such cylinders have been provided with a die having a rib or projections on its inner surface which fitted within the groove on the cylinder when the die was in position; also, that cylinders consisting of two parts having a circumferential groove at the junction of the parts and provided with a die having a rib or projections on its inner surface which fitted within the groove, the separate parts of the cylinder being securely fastened together after the die was placed in position, are well known. Each of these devices, however, is objectionable, for the reason that with the first a die of greater length than one-half the circumference of the cylinder could not be used, and in the second case the cylinder being composed of two pieces it involved great cost in constructing and fitting the parts, and had also to be taken apart and the separate portions thereof again securely fastened together whenever it became necessary to change the die. With my improvement, however, all the foregoing objections are removed, and I am enabled to employ a

die of any desired length, which may be placed in position on the cylinder by simply sliding it over the same endwise, and then partially rotating it thereon, the projections or lugs on the inner surface of the die entering the transverse grooves or slots on the surface of the cylinder in the first operation and passing into the circumferential groove or slot in the second, after which the die may be secured from rotary movement in any desired manner, the projections or lugs on its inner surface fitting within the circumferential groove, preventing its lateral movement.

In the accompanying drawings, forming part of this specification, Figure 1 represents a perspective view of my improved die-cylinder; Fig. 2, a perspective view of my improved die; Fig. 3, an end view of my improved cylinder with the die mounted thereon; Fig. 4, a modified form of my improved die-cylinder, and Fig. 5 a modified form of my improved die.

Referring to the drawings, A represents my improved cylinder; B, the shaft upon which the same is mounted; C, a circumferential groove upon the peripheral surface of said cylinder, and D D transverse grooves in said surface running into and communicating with said circumferential groove C.

E represents the die provided on its outer circumferential surface with any preferred pattern or ornamental configuration which it is desired to have impressed upon wood or other compressible material and having lugs or projections F upon its inner surface, so spaced as to correspond with the transverse grooves D D upon the cylinder A. One end of the die E, when it is sectional in form, is preferably provided with holes H, so placed as to register with screw-holes G in the cylinder A when the die is placed in position thereon, through which may be passed a screw or screws I to hold the die firmly in place upon said cylinder and prevent its rotation thereon.

To place the die E in position upon the cylinder A it is only necessary to slip the same over the end thereof, the lugs or projections F passing through the transverse grooves D D and entering the circumferential groove C. Then by a slight rotation of the die upon the

cylinder A said lugs are moved along said groove C to a point between the transverse grooves D D, as shown in dotted lines in Fig. 3, and the screw-holes H in the die and G in the cylinder are brought opposite one another and the die firmly fastened upon the cylinder by a screw or screws I. When a die of less length than the circumference of the cylinder is employed, it is preferably fastened only at one end, as shown in Fig. 3, thus preventing buckling, while the lugs or projections F, being held in the circumferential groove C, prevent the die from slipping sidewise upon the cylinder.

In the modified form of cylinder shown in Fig. 4 the circumferential groove C is interrupted, forming separate grooves or chambers C at the end of and at right angles to the transverse grooves D D of barely sufficient size to allow the lugs or projections F of the die to enter therein, thus making in effect a bayonet-joint. When this form of cylinder is used in connection with a completely or nearly circular die, the die may be fastened thereon by slipping a slide or bar M into one or more of the transverse grooves D D, the inner end thereof passing behind the lug F, thus firmly locking the die in position, and this slide or bar M may be fastened in place by a screw N or other convenient device.

In lieu of the means described for preventing the rotation of the die, I may employ in connection therewith lugs or ears K, with holes L adapted to register with holes in the surface of the cylinder A, by which the same may be screwed to the cylinder, or these may be dispensed with, as desired.

I do not limit myself to the exact construction shown and described herein, as many changes or alterations may be made therein without departing from the scope of my invention—as, for instance, the groove C may be made in the form of a dovetail and the lugs F F formed to correspond therewith, in order to more firmly hold the die in position, and many other modifications will readily suggest themselves.

Having now fully described my invention, its construction, and operation, what I claim, and desire to secure by Letters Patent, is—

1. In a machine for ornamenting wood, the combination, with a die-cylinder having a transverse groove or grooves on its periphery, of a circular die having a lug or lugs upon its inner surface adapted to enter said groove or grooves, whereby the die may be slid upon the cylinder, substantially as shown and described.

2. The combination, with a die-cylinder having a circumferential groove or grooves and a transverse groove or grooves communicating therewith, of a die having a lug or lugs upon its inner surface adapted to enter said grooves, substantially as shown and described.

3. The combination, with a die-cylinder having a circumferential groove or grooves and a transverse groove or grooves communicating therewith, of a die having a lug or lugs upon its inner surface adapted to enter said grooves and means to prevent the rotation of the die upon the cylinder, substantially as shown and described.

4. The combination of the die-cylinder having the circumferential and transverse grooves and a complete circular die having lugs or projections on its inner surface adapted to enter said grooves, substantially as shown and described.

5. The combination of a cylinder formed in a single piece, having a circumferential groove or grooves, and a die of greater length than one-half the circumference of the cylinder, provided with lugs or projections adapted to enter said groove or grooves, and means whereby the die may be placed in position with the lugs or projections within the groove or grooves, substantially as shown and described.

CLARENCE L. DAVIS.

Witnesses:

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