

No. 745,555.

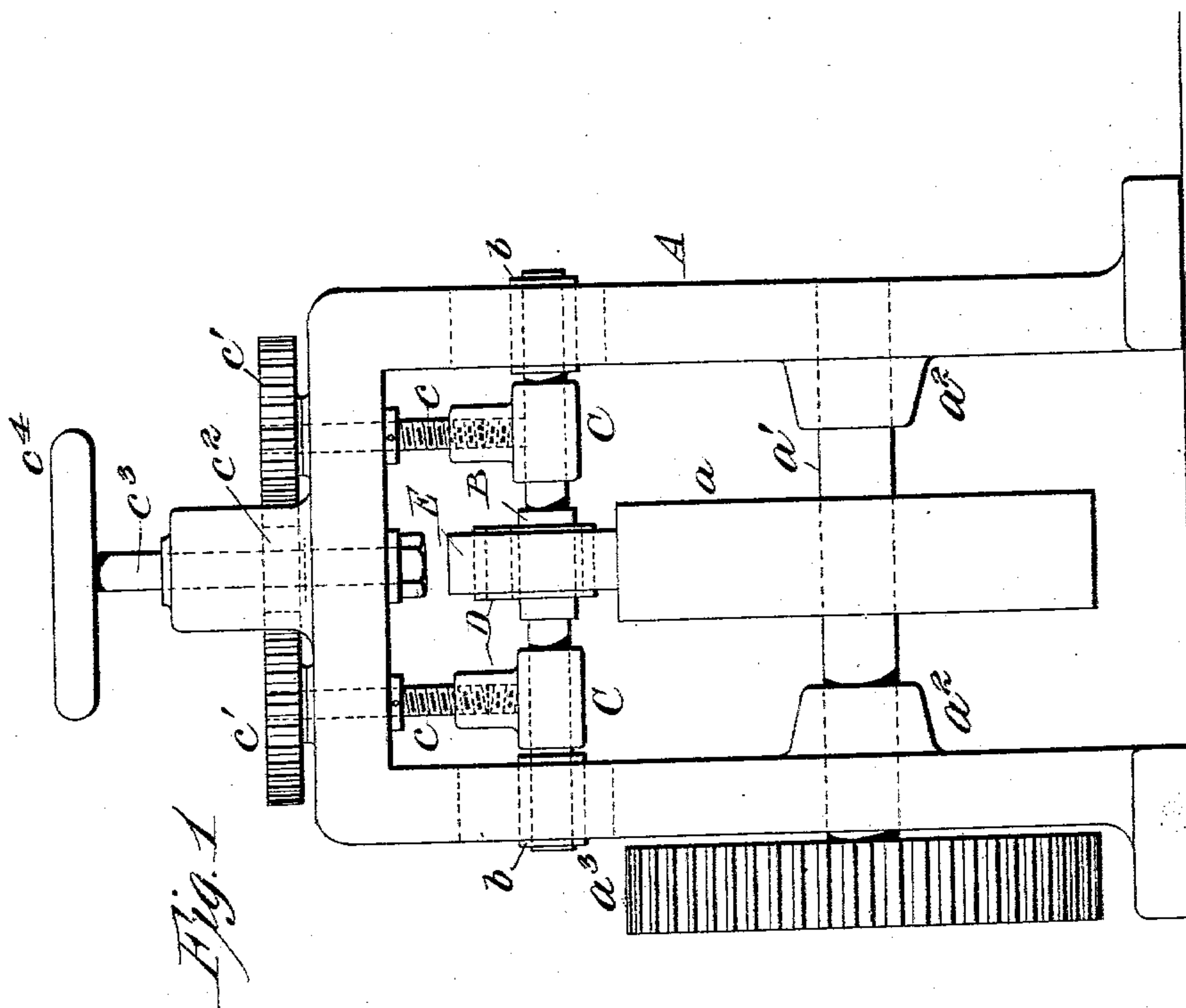
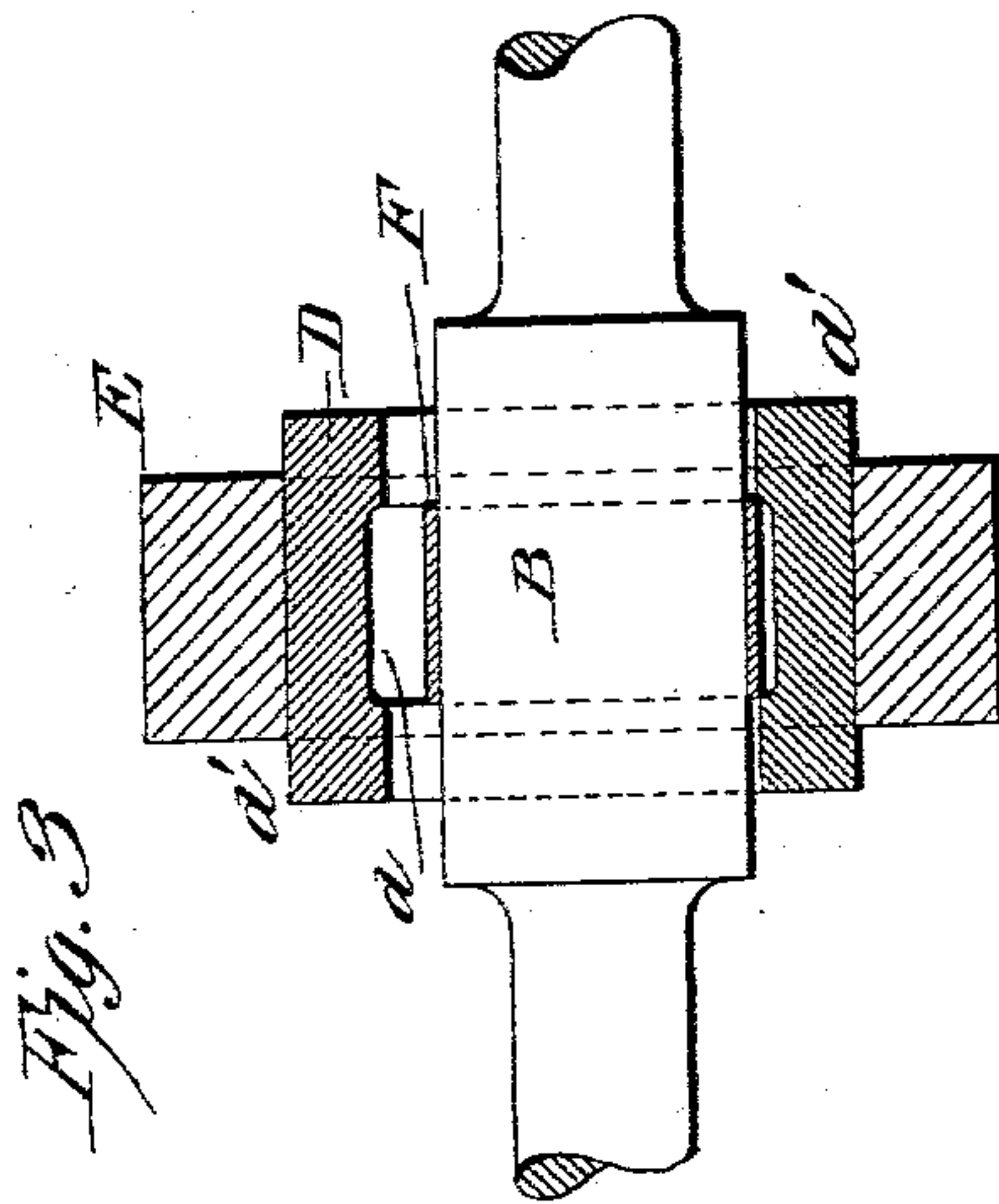
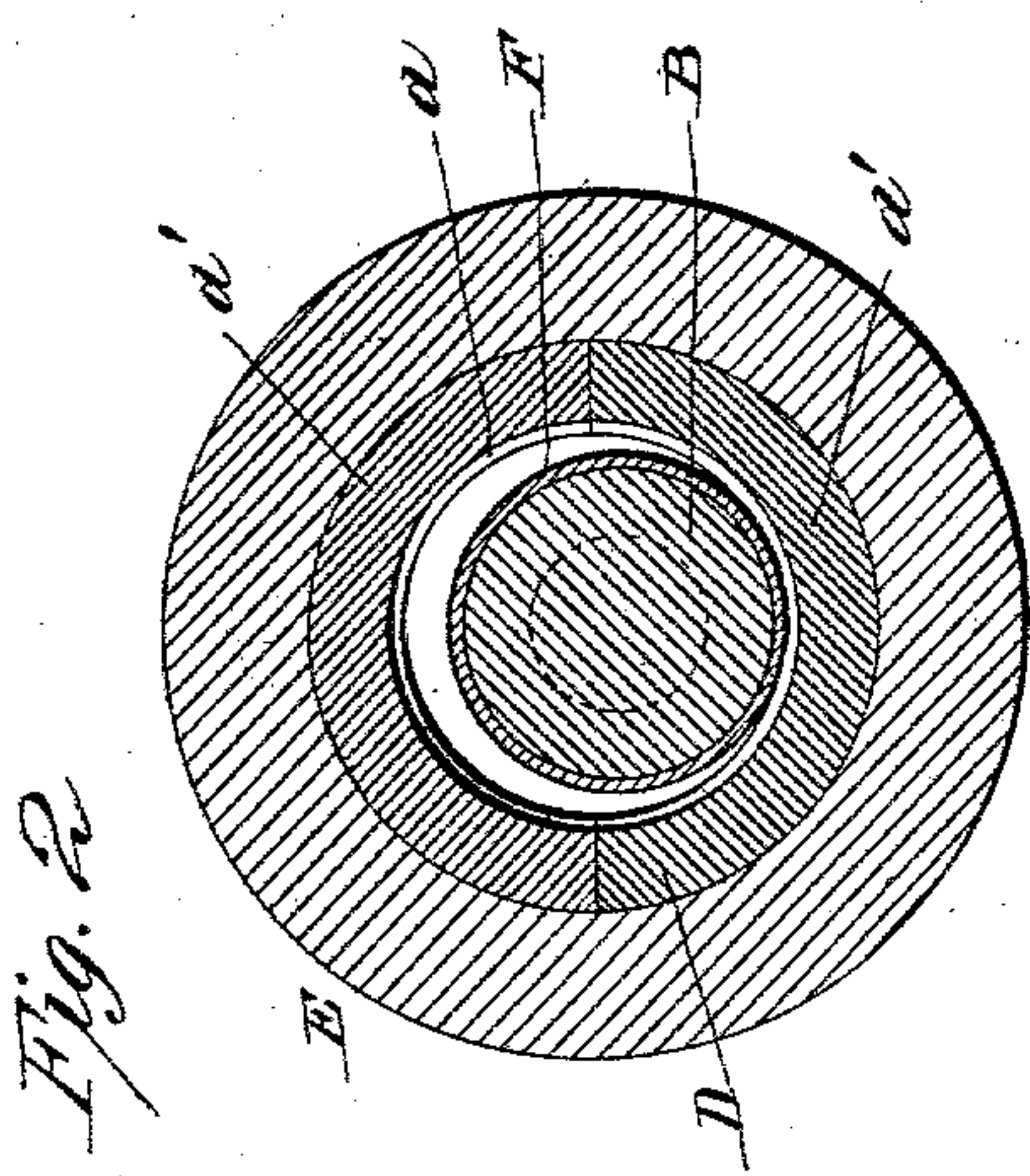
PATENTED DEC. 1, 1903.

J. ARANYI.

APPARATUS FOR MAKING AND ORNAMENTING BRACELETS, RINGS, &c.

APPLICATION FILED MAR. 2, 1903.

NO MODEL.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH ARANYI, OF BROOKLYN, NEW YORK.

APPARATUS FOR MAKING AND ORNAMENTING BRACELETS, RINGS, &c.

SPECIFICATION forming part of Letters Patent No. 745,555, dated December 1, 1903.

Application filed March 2, 1903. Serial No. 145,713. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ARANYI, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Apparatus for Making and Ornamenting Bracelets, Rings, and Similar Articles, of which the following is a specification.

The object of the invention is to provide a machine which shall be simple and durable in operation for making or ornamenting, or both making and ornamenting, annular articles—such, for instance, as bracelets, finger and napkin rings, &c.—of any suitable material. Heretofore it has been largely the custom to manufacture these from strips of metal, the ends of which were after the ornamenting operation joined by solder. Such operation has been commonly performed by means of a concave ornamented die, into which the metal has been pressed. The ornamentation thus produced has been very imperfect, particularly where it has been sought to impress a deep or bold design into the article or where a portion of such design has been deep and another portion shallow. In addition it has been found impossible to so join the ends of the strip as to make the junction permanently invisible.

Under the present invention the difficulties above referred to, as well as many others, are entirely avoided, perfect and artistically-engraved work being produced by a simple and rapid operation, whereby the cost of production is minimized. I employ an annular die, the engraved or otherwise ornamented portion whereof is formed in concave in the internal surface. This die is sectional—i. e., in two or more parts—and the sections are held in position by a retaining-ring fitting snugly around the exterior thereof. A pressure-roller of less diameter than the opening in the die extends through such opening, such roller and die being adjustable relatively to each other. The material to be operated upon is preferably cut from a section of tubing, and is therefore annular. This is placed around the pressure-roller and in line with the engraved portion of the die. Power may then be applied either to the die or to the roller, or to both. Excellent results may be

obtained by applying the power to the die, the pressure-roller being so adjusted relatively thereto as to force the annulus carried thereby into the concave engraved portion of the die, so as to reproduce the ornamentation upon the exterior of the annulus or to give other form or configuration thereto, or both. The adjacent surfaces of the annulus and engraved portion of the die are brought together as many times as desired to produce the best reproduction of the ornamentation.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation illustrating an embodiment of my invention; and Figs. 2 and 3, enlarged sectional detail views illustrating the pressure-roller, the annulus thereon, the die, and retaining-ring.

Referring to the drawings, in which similar letters denote corresponding parts, and in which I have attempted to do no more than illustrate a mechanism by which the invention may be practiced with advantageous results, A designates a U-shaped supporting-frame provided with a friction-roll *a*, mounted upon a shaft *a'*, supported in suitable journals *a''* in the frame and provided with a gear or pulley *a'''*, by means of which power may be applied.

B designates the pressure-roller, the ends of which are mounted in journal-boxes *b*, carried in vertical slots in the supporting-frame A. If desired, the central portion *b'* of the pressure-roller may be of somewhat greater diameter than the portions on either side thereof.

C C designate sleeves in which the pressure-roller B rotates. Coacting with these are adjusting-screws *c c*, passing through the upper horizontal portion of the frame A and provided at their ends with gears *c'* *c'*, actuated by a gear *c''*, carried by a shaft *c'''*, mounted also in said frame and provided with a hand-wheel *c''''*. Obviously movement of the latter in one or the other direction will operate through the mechanism just described to raise or lower the pressure-roller B.

D designates the die, the interior of which is provided with the concavity *d*, which may, if desired, be suitably ornamented in cameo. Said die is here shown as made in two sec-

tions d' , held together by the retaining-ring E, fitting snugly around said sections and in such position as to be revolved, with its enclosed sections, by the friction-roll a .

5 F designates the work. This, as heretofore stated, is an annulus of any suitable material. It is slipped over the pressure-roller B to the point opposite the concavity d of the die, as clearly illustrated in Fig. 3. Power
10 is then applied to the friction-roll a , and by means of the hand-wheel c^4 the pressure-roller depressed until the retaining-ring E is brought into contact with said roll, so as to be rotated thereby. Further downward ad-
15 justment of the pressure-roller B forces the work F into the concavity d and effects the transfer to the former from the latter of the configuration and ornamentation of said concavity. Thus by a simple and rapid opera-
20 tion the entire process of forming and ornamenting the annulus is completed, but slight finishing being required—as, for instance, smoothing the edges.

I have not deemed it necessary to illustrate
25 and describe herein certain details which may or may not be employed in the mechanism herein disclosed as desired by the builder or operator and which will readily suggest themselves and their functions.

What I claim, and desire to secure by Let- 30
ters Patent, is as follows:

1. The combination with an annular die, of a pressure-roller of uniform diameter extend-
ing entirely through said die and supported
at both ends, and means for operating said 35
roller in a single axial plane, substantially as set forth.

2. The combination with an annular sec-
tional die and locking mechanism therefor, of
a pressure-roller of uniform diameter extend- 40
ing entirely through said die and supported
at both ends, and means for operating said
roller in a single axial plane, substantially as
set forth.

3. The combination with a sectional annu- 45
lar die and locking mechanism therefor, of a
concavity in the internal face of said die, a
pressure-roller of uniform diameter located
within said die and supported at both ends,
and means for varying the relation of said 50
die and roller, substantially as set forth.

This specification signed and witnessed this
24th day of February, 1903.

JOSEPH ARANYI.

Witnesses:

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