

(No Model.)

C. H. ENSIGN & P. B. WRIGHT.
PACKING FOR STUFFING BOXES.

No. 430,313.

Patented June 17, 1890.

FIG. 1.

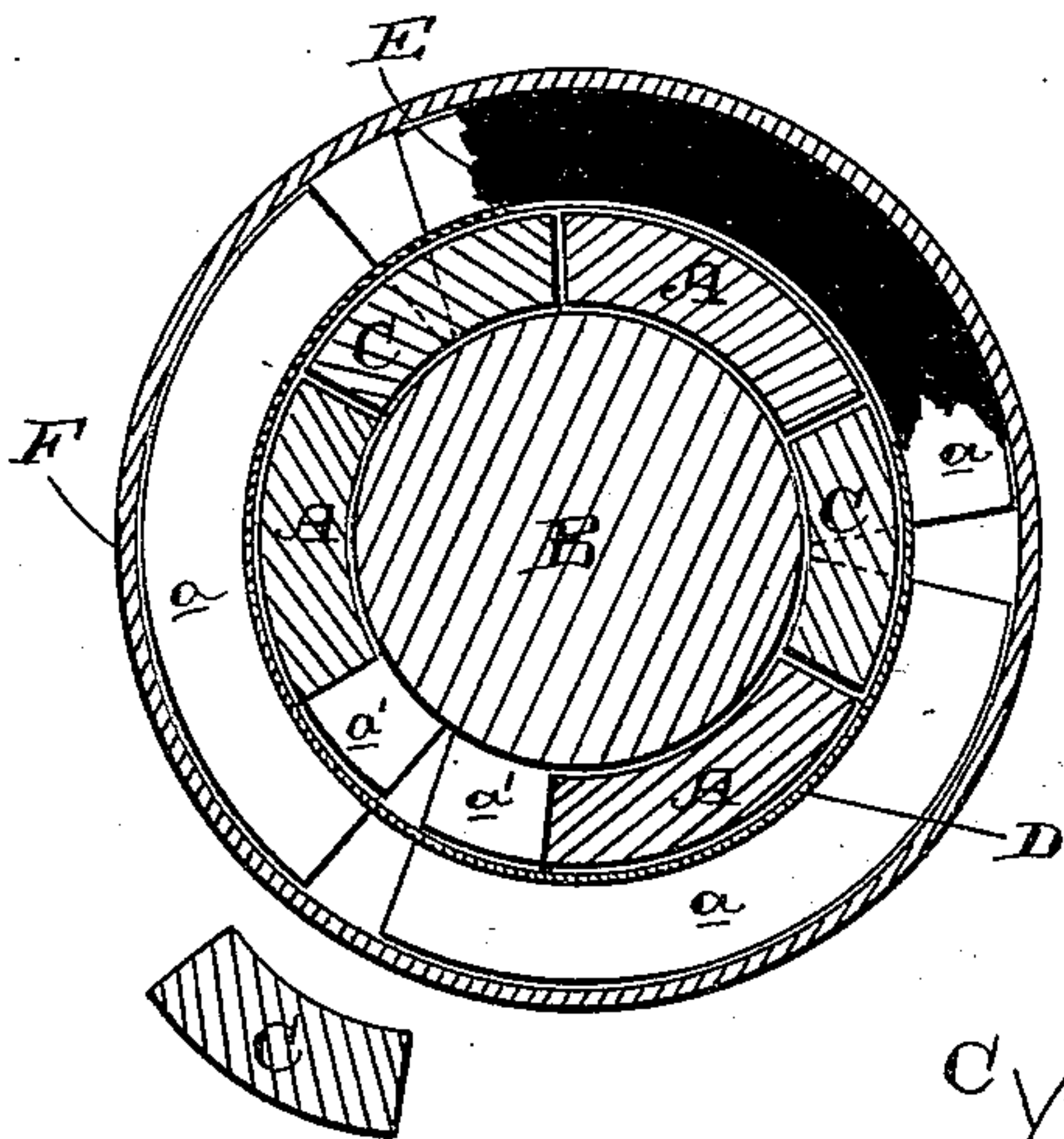


FIG. 4.

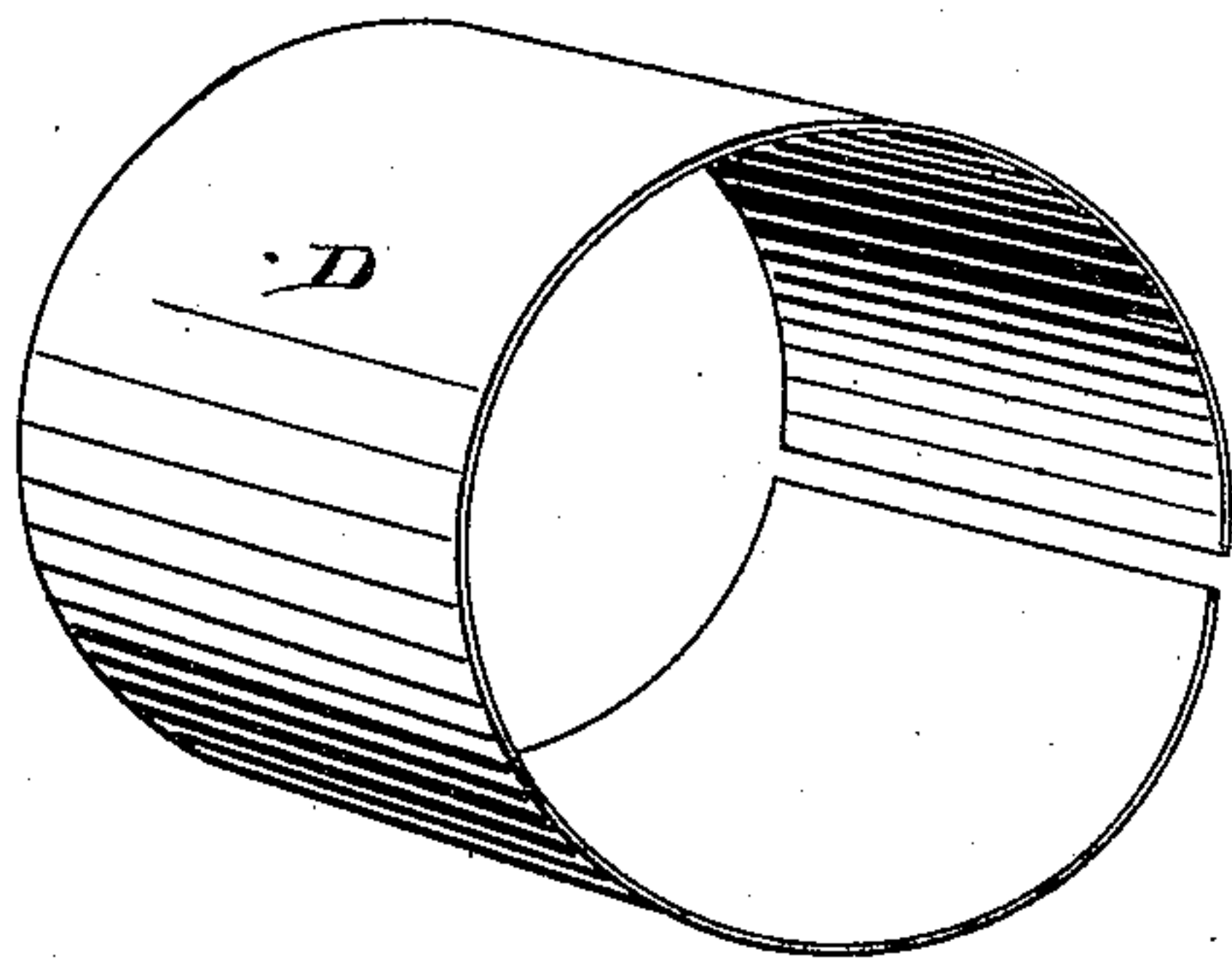


FIG. 3.

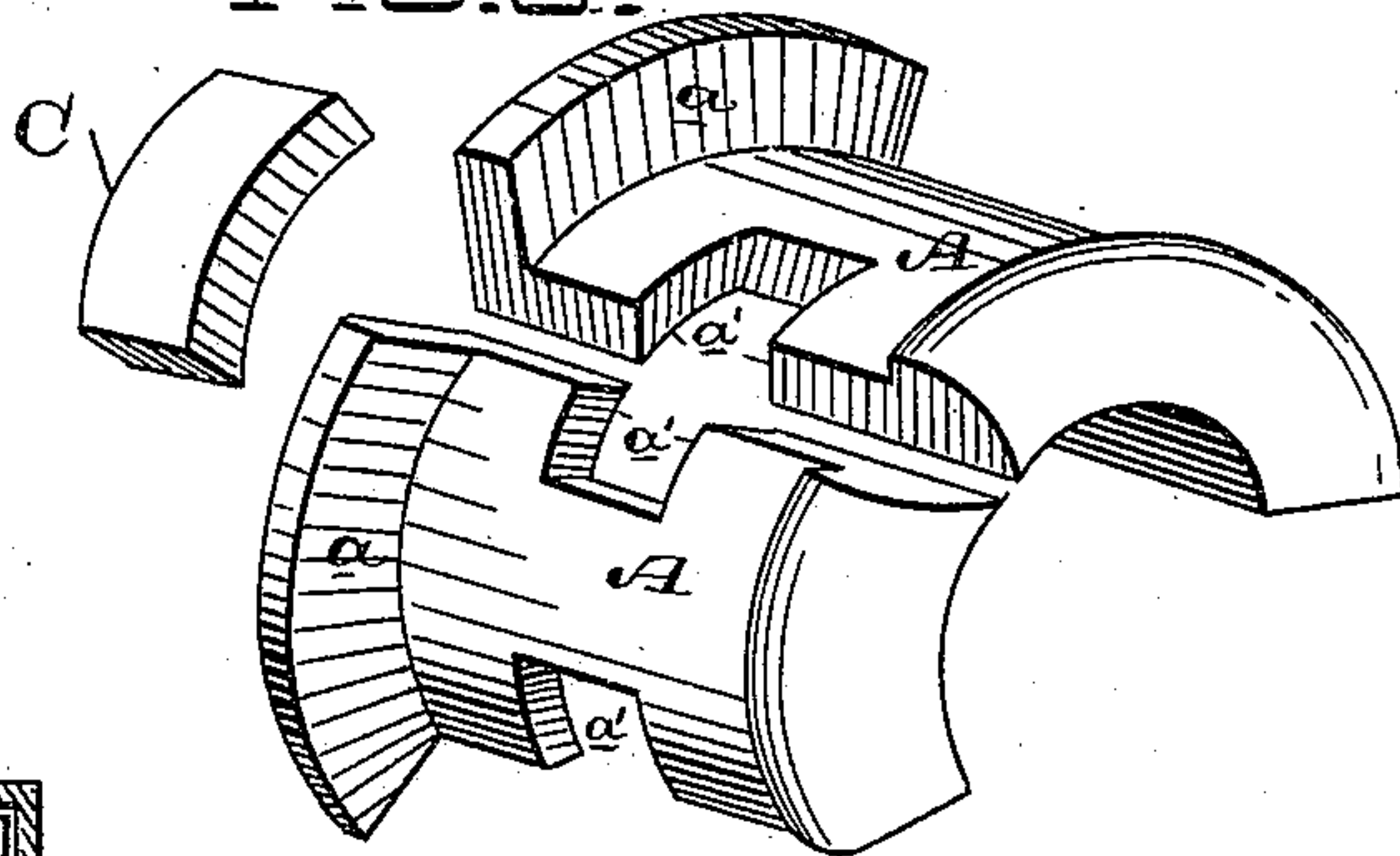


FIG. 2.

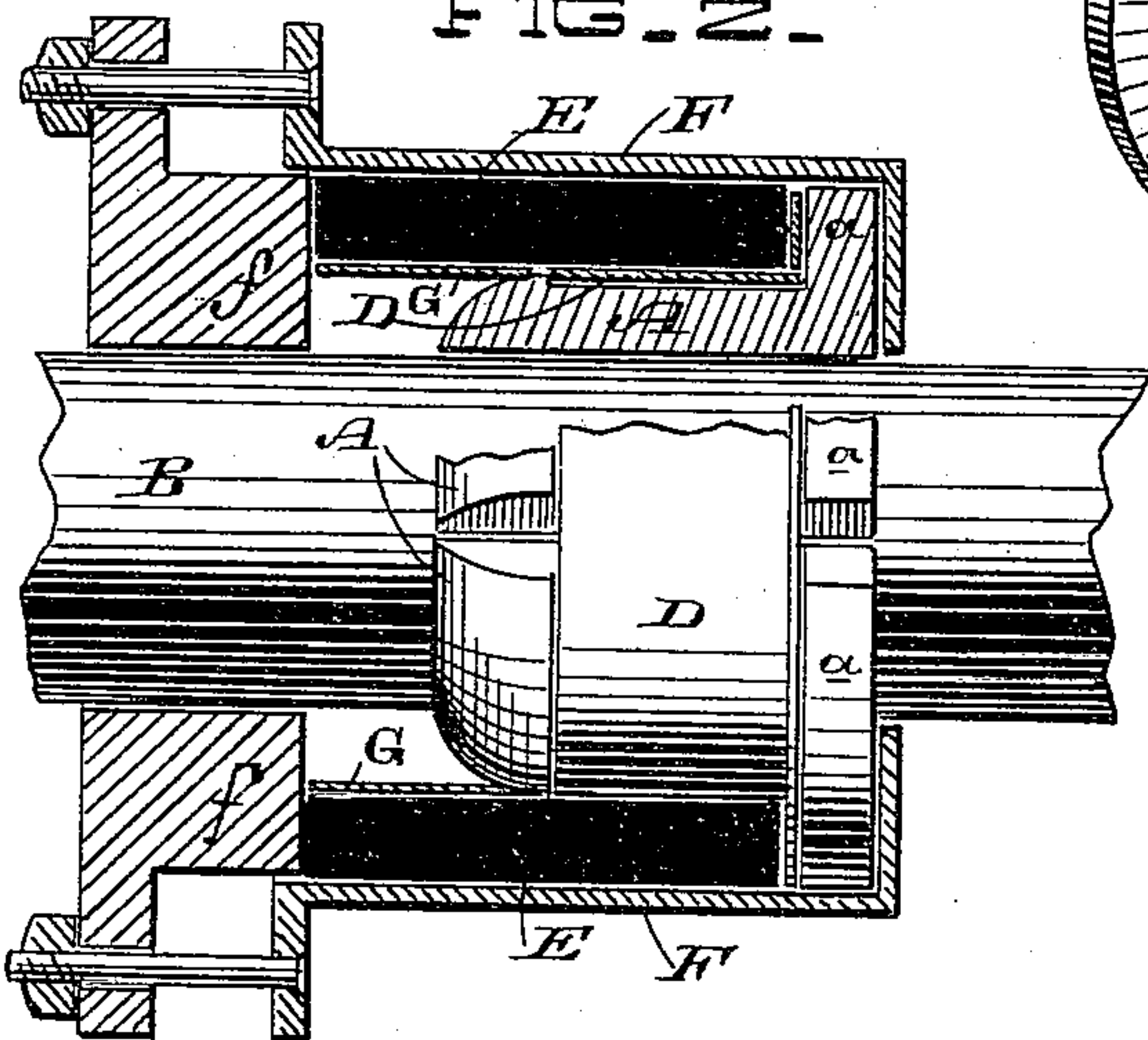
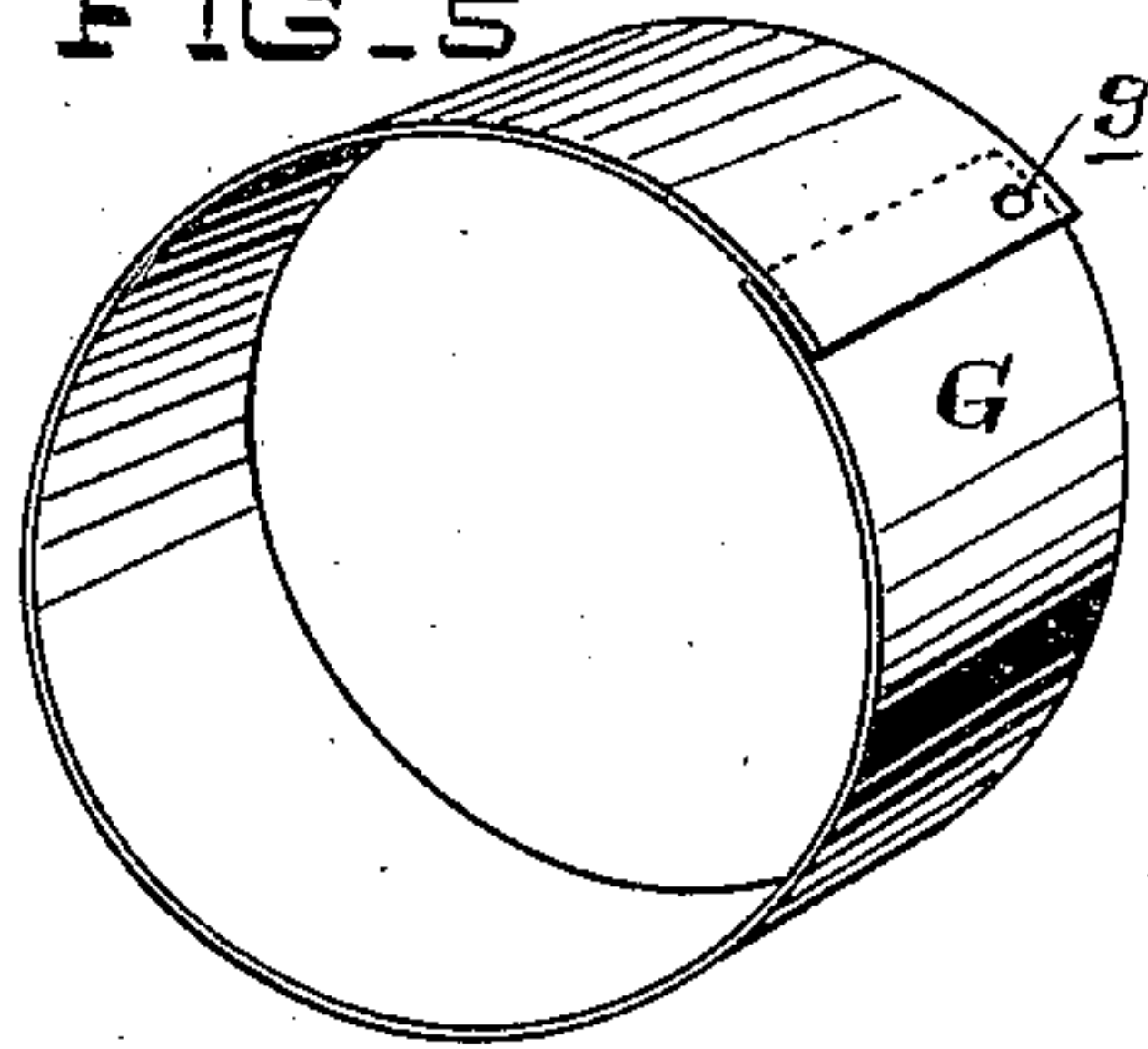


FIG. 5.



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UNITED STATES PATENT OFFICE.

CHARLES H. ENSIGN, OF TEMESCAL, AND PHIN B. WRIGHT, OF BERKELEY,
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PACKING FOR STUFFING-BOXES.

SPECIFICATION forming part of Letters Patent No. 430,313, dated June 17, 1890.

Application filed December 18, 1889. Serial No. 334,191. (No model.)

To all whom it may concern:

Be it known that we, CHARLES H. ENSIGN, residing at Temescal, and PHIN B. WRIGHT, residing at Berkeley, both in Alameda county, State of California, citizens of the United States, have invented an Improvement in Packing for Stuffing-Boxes; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to that class of packing for stuffing-boxes in which sectional metallic rings fitted to the rod are held in place by an encircling body of compressible material.

Our invention consists in the novel construction of the sectional ring and its arrangement and combination with surrounding parts, hereinafter fully described, and specifically pointed out in the claims.

The object of our invention is to provide a simple and effective packing of this class which will maintain its perfect adjustment during use and consequent wear.

Referring to the accompanying drawings for a more complete explanation of our invention, Figure 1 is a central cross-section of our packing, a portion only of the rubber ring E being shown, and one of the keys C being shown removed. Fig. 2 is a vertical longitudinal section of our packing, the lower half of the metallic packing-ring and the band D being in elevation. Fig. 3 is a perspective view showing two of the sections A and one of the keys C. Fig. 4 is a view of band D. Fig. 5 is a view of band G.

The metallic ring is made in sections A, preferably three in number, of about equal size. These sections are concavo-convex, enabling them to fit about the rod B. Each section has a flange *a* on one end, and the adjacent edges of the sections, as well as the adjacent ends of the flange, are so beveled with respect to each other as to flare outwardly from the inner or concave surface to the outer or convex surface. In each side of each section are made corresponding recesses or keyways *a'*, and into these and bridging the space between the sections are let freely the keys C, consisting of small curved pieces, which lie upon rod B. Encircling the sections and keys is a severed contractible band

D of metal, which serves to lightly hold the parts together upon the rod. Around all these parts is the ring of compressible material—such as rubber E—which lies within the stuffing-box F, being confined and compressed between the flanges *a* of the ring-sections and the gland *f* of the box.

G is a severed contractible band of metal, which encircles the outer rounded end of the ring-sections and lies under the rubber. This band has its edges, as shown at *g*, riveted or pivoted together at one end, leaving the other end free to contract and expand. Now it will be seen that by reason of the outwardly flaring or beveled edges of the ring-sections their interior may wear, and the exterior rubber band may continuously compress them upon the rod without having said edges come any closer together. Therefore the packing constantly adjusts itself under wear and fits the rod properly at all times. The object of having three sections is to provide for taking up the wear all around, and thus preserve the perfect circular character of the interior of the ring.

The keys C, while permitting the contraction of the ring, are for the purpose of breaking their joints and making the necessary steam-tight joint of the packing.

The band D, in addition to holding the parts together, has for its main purpose the keeping of the rubber E out of the joints, and the band G has a similar purpose of keeping the rubber out of the joints at the end of the ring, and also preventing it from binding too closely on the rod.

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

1. An improved stuffing-box consisting of the main sections having recessed adjacent edges, and having one end flanged and the other rounded, independent key-pieces fitted upon the rod between the recesses in the main sections, a severed contractible band encircling the sections and keys, a compressible ring exterior of the band and confined between the end flanges of the main sections and the gland of the stuffing-box, and a second severed contractible band within the compressible ring and encircling the rounded

ends of the main sections, substantially as described.

2. An improved stuffing-box consisting of the main sections, the key-sections fitted between them and the encircling contractible ring, in combination with a severed ring within the compressible ring between the inner ends of the main sections and the gland of the stuffing-box, said inner ring having its severed edges at one side riveted together,

thereby leaving the other edges free to contract and expand, substantially as described.

In witness whereof we have hereunto set our hands.

CHARLES H. ENSIGN.
PHIN B. WRIGHT.

Witnesses:

DU RAY SMITH,
JOHN MARTENS.