

No. 706,078.

Patented Aug. 5, 1902.

F. O. MECHLIN.  
CUTTER HEAD.

(Application filed Jan. 10, 1902.)

(No Model.)

Fig. 1.

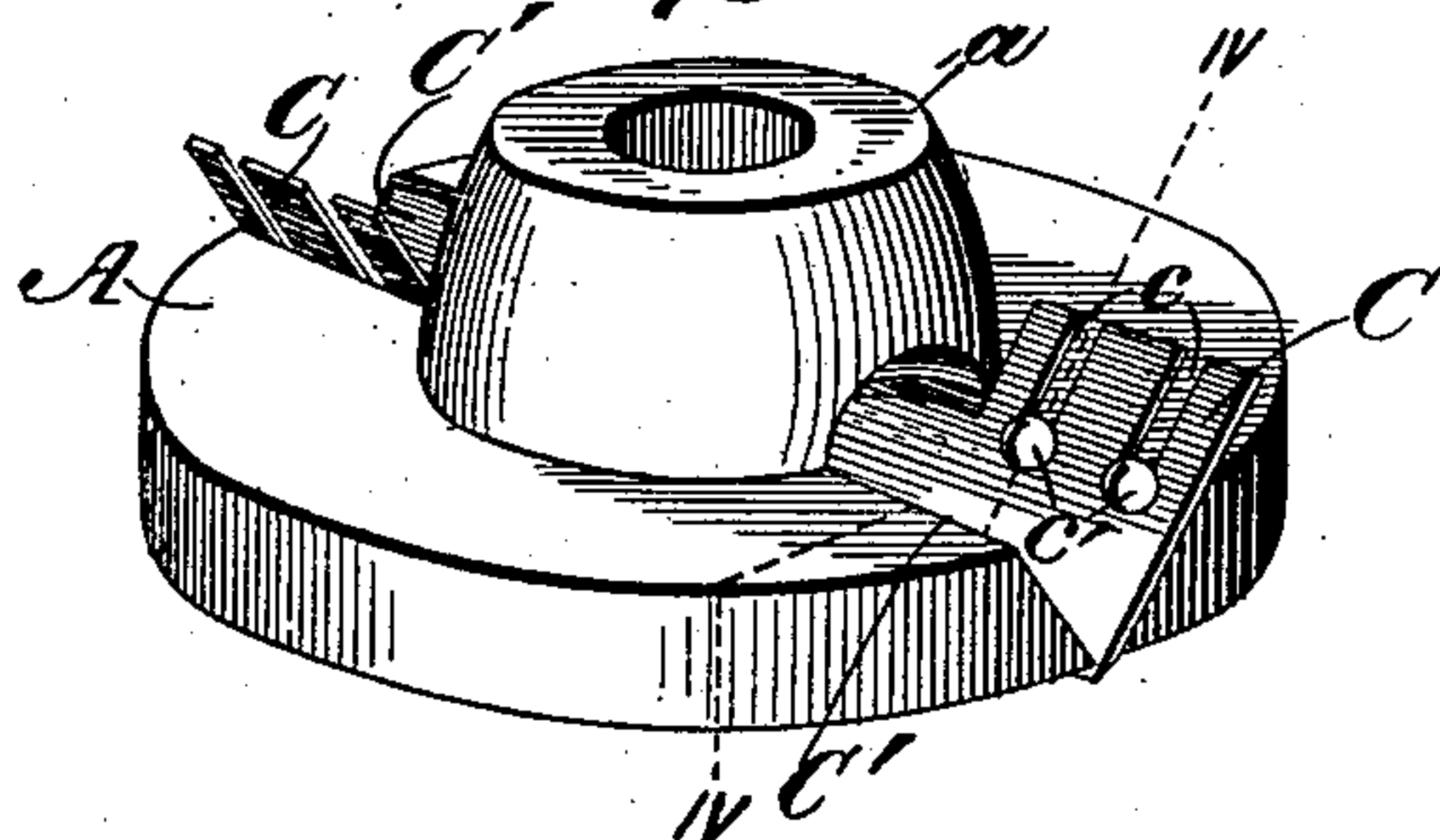


Fig. 2.

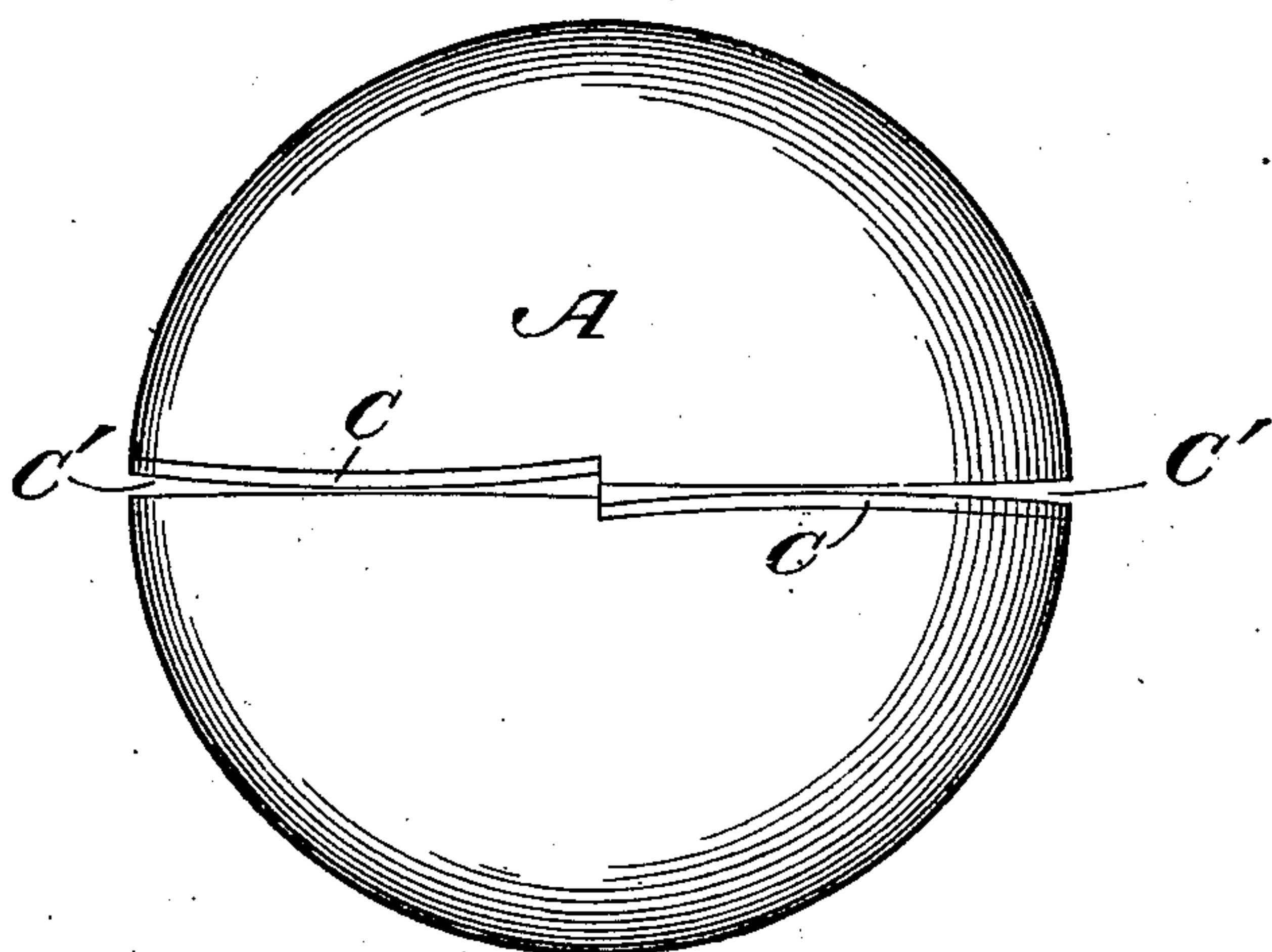


Fig. 3.

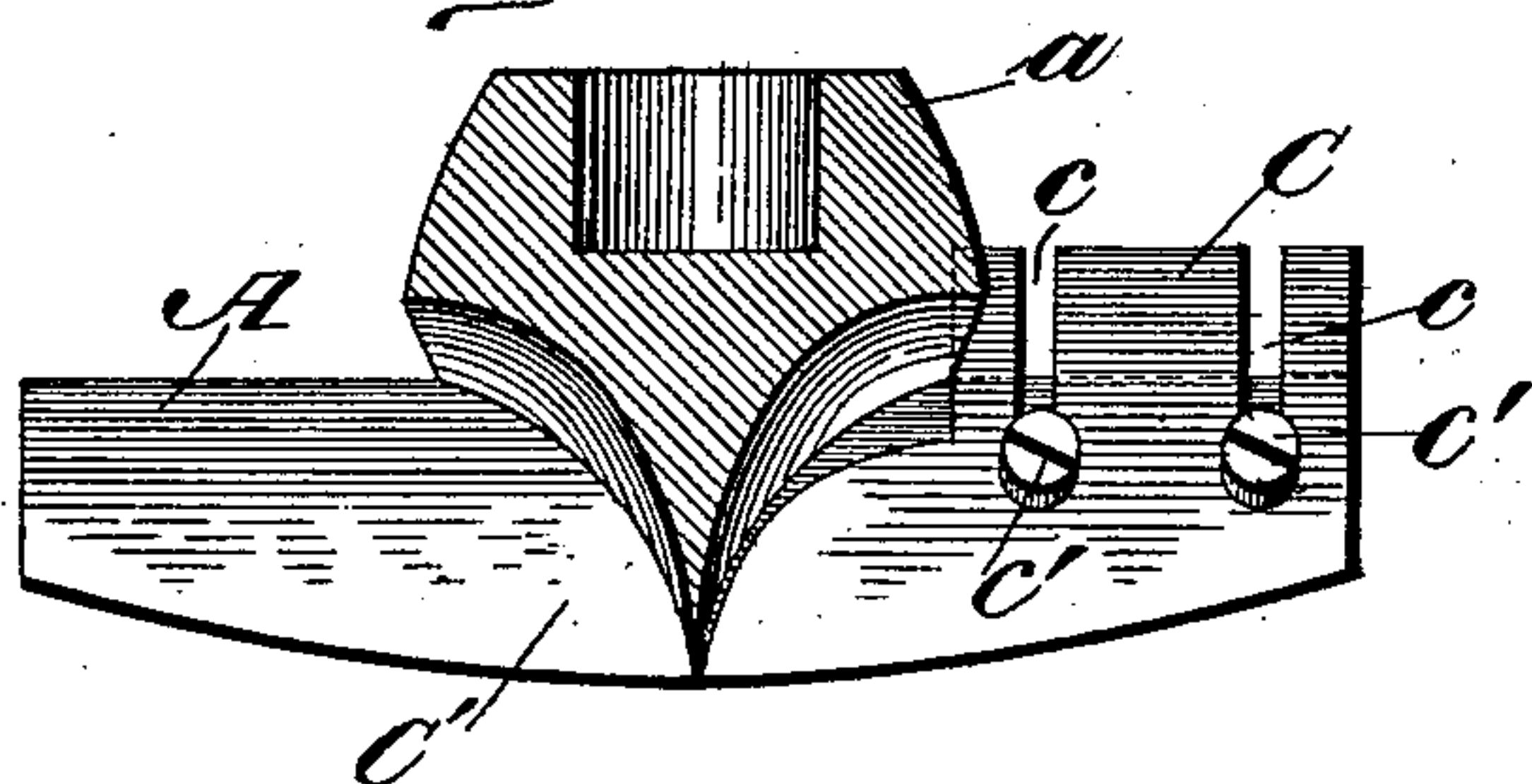
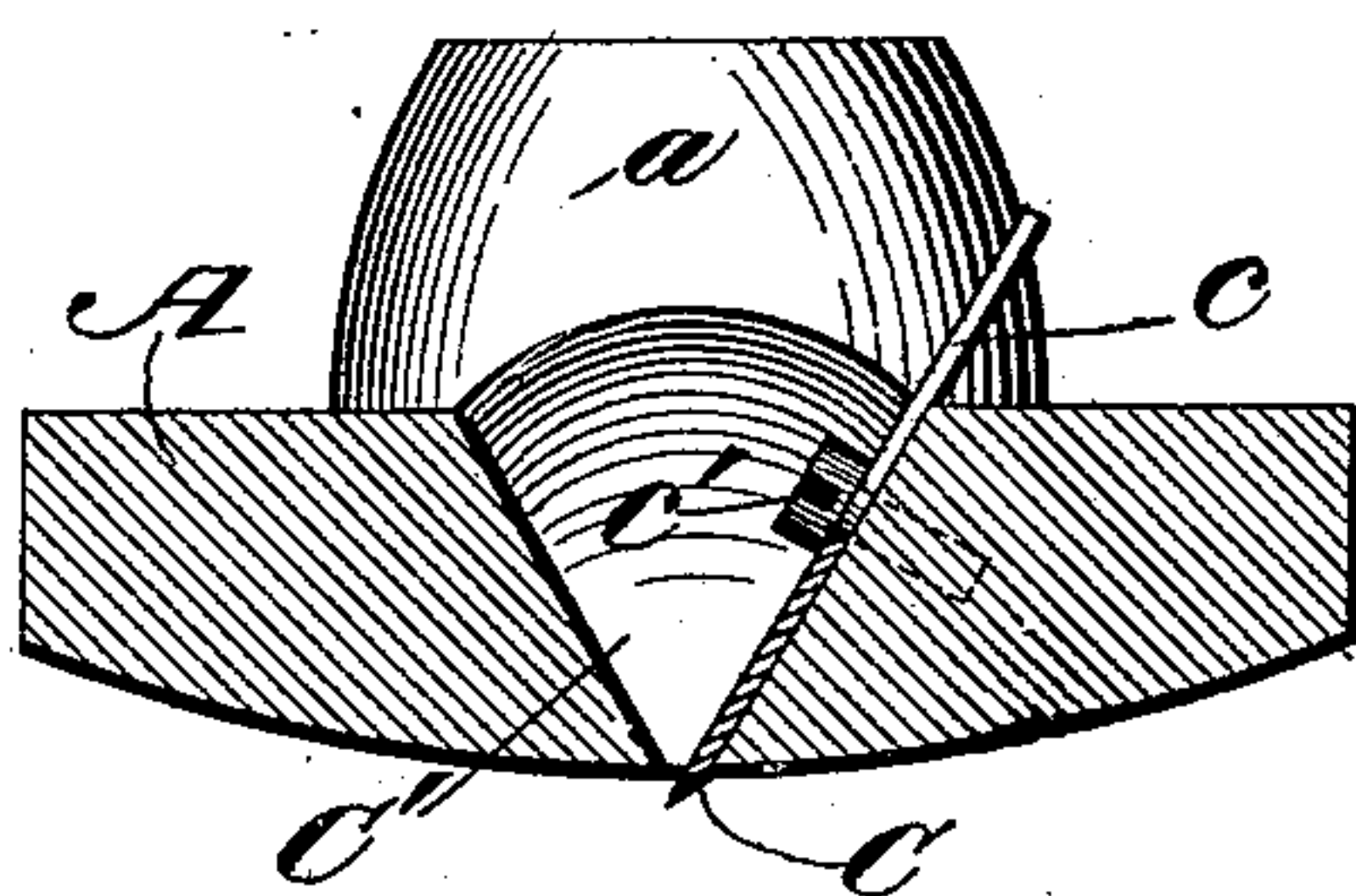


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

FRANCIS O. MECHLIN, OF WASHINGTON COURT-HOUSE, OHIO.

## CUTTER-HEAD.

SPECIFICATION forming part of Letters Patent No. 706,078, dated August 5, 1902.

Original application filed August 30, 1901, Serial No. 73,841. Divided and this application filed January 10, 1902. Serial No. 89,218. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS O. MECHLIN, a citizen of the United States, residing at Washington Court-House, in the county of Fayette and State of Ohio, have invented certain new and useful Improvements in Cutter-Heads; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to devices for cutting out saddle-seat bottoms for chairs—that is, for cutting chair-bottoms in saddle-seat form—and also for “dishing” other articles.

The objects of my invention are to provide an improved and efficient cutter-head for such purposes.

The invention will first be hereinafter more fully described with reference to the accompanying drawings, which are to be taken as a part of this specification, and then pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a perspective view of a cutter-head embodying my invention. Fig. 2 is an inverted or bottom plan view of the same. Fig. 3 is a detail sectional view, and Fig. 4 is a detail sectional view on the line IV IV of Figure 1.

The cutter-head which I shall now proceed to describe as constituting one form of embodiment of my invention is denoted by the letter A in the drawings and is adapted to be used with any ordinary boring-machine—such, for example, as shown in my application, Serial No. 73,841, filed August 30, 1901, of which this application is a division—said machine being provided with the usual appliances for raising and lowering a work-supporting table by which the work may be moved at will toward and from the cutting-tool to enable the latter to act thereon; but inasmuch as said boring-machine forms no part of my present invention it is deemed unnecessary to illustrate or describe the same herein. Said cutter-head has a boss or hub-like enlargement *a* thereon for securing it to the lower end of a suitable driving-shaft and is provided with one or more knives or cutters C C, having curved cutting edges which

extend from the center to the circumference or outer edge of said head, said knives being fitted and adjustably secured in slots or excavations C' C', having inclined walls or seats for the knives and extending transversely of the head, preferably in substantially the same horizontal plane and in opposite directions from the center. The material of the head centrally thereof or below the boss *a* and in the plane of said slots is cut away, as shown in Fig. 3, so as to provide an undercut recess or continuation of the slots, which meet at the center to permit the inner ends of the knives to extend to the center, and when two knives are used in slots thus formed the inner ends of the knives are brought close together at the center of the head, and their cutting edges extend entirely across the bottom of said head, one-half of said cutting edge being formed by each knife and curved in the form of a segment of a circle described by the convex surface of the bottom of the cutter-head, as shown in Fig. 3. The shank of each knife may be slotted, as at *c*, or otherwise adapted to receive suitable fastening-bolts, as at *c'*, by which the knives may be adjusted as their cutting edges become worn and may be easily removed when desired for sharpening or for substituting a new knife for an old or broken one. The cutter-head thus formed is not materially weakened by cutting away the material of the circular body to provide seats for the knives, and a substantial strengthening boss or hub is provided centrally of said body, overhanging or overlying the inner portions or continuations of the slots in which the knives are secured. Two knives are preferable, arranged as shown; but a greater or less number may be employed. As thus constructed the cutter-head will operate to form a concave recess, and is thereby especially adapted to cut out saddle-seat bottoms for chairs and for cupping chair and stool seats or dishing other articles.

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

1. A cutter-head comprising a circular body having a convex face or bottom, and a substantial strengthening boss or hub on its op-

posite face, and radial slots extending from the periphery of said body to the periphery of said boss and continuing thence to the center in the form of undercut recesses beneath  
5 said boss, together with knives fitted in said slots so that their inner ends in effect meet; substantially as described.

2. A cutter-head comprising a circular body having a convex face or bottom, and a substantial strengthening boss or hub on its opposite face, and radial slots extending from  
10 the periphery of said body to the periphery of said boss and continuing thence to the cen-

ter in the form of undercut recesses beneath said boss, together with knives having slot- 15  
ted shanks adjustably secured in said slots and inner portions of reduced width extending inward in said undercut recesses to a point at the center; substantially as described.

In testimony whereof I affix my signature 20  
in presence of two witnesses.

FRANCIS O. MECHLIN.

Witnesses:

C. C. BATEMAN,  
F. M. BATEMAN.