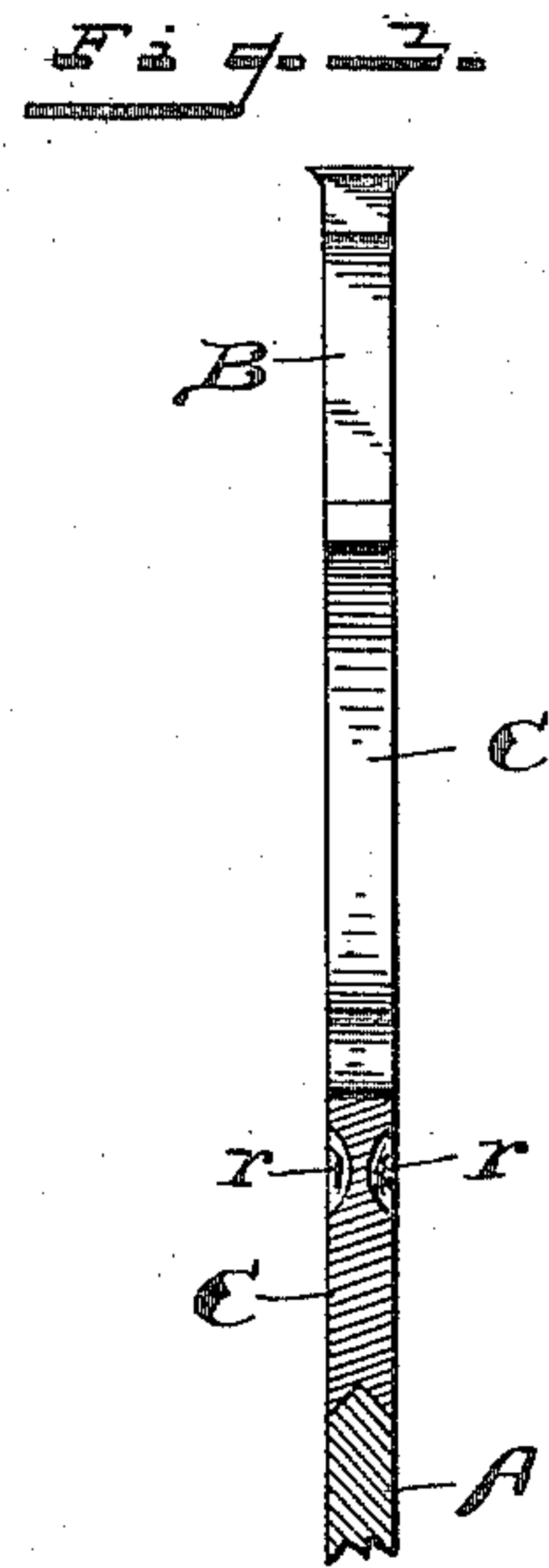
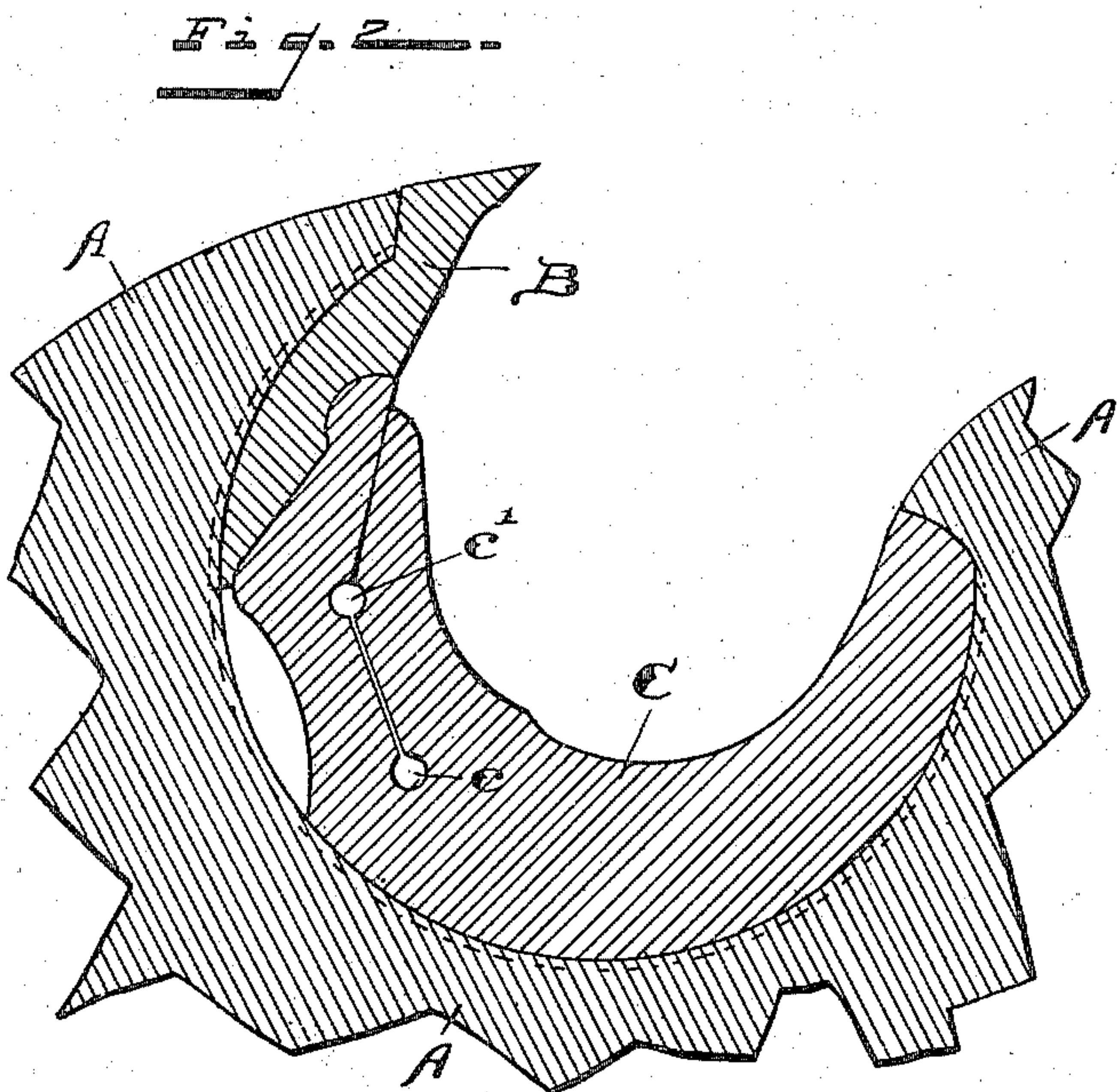
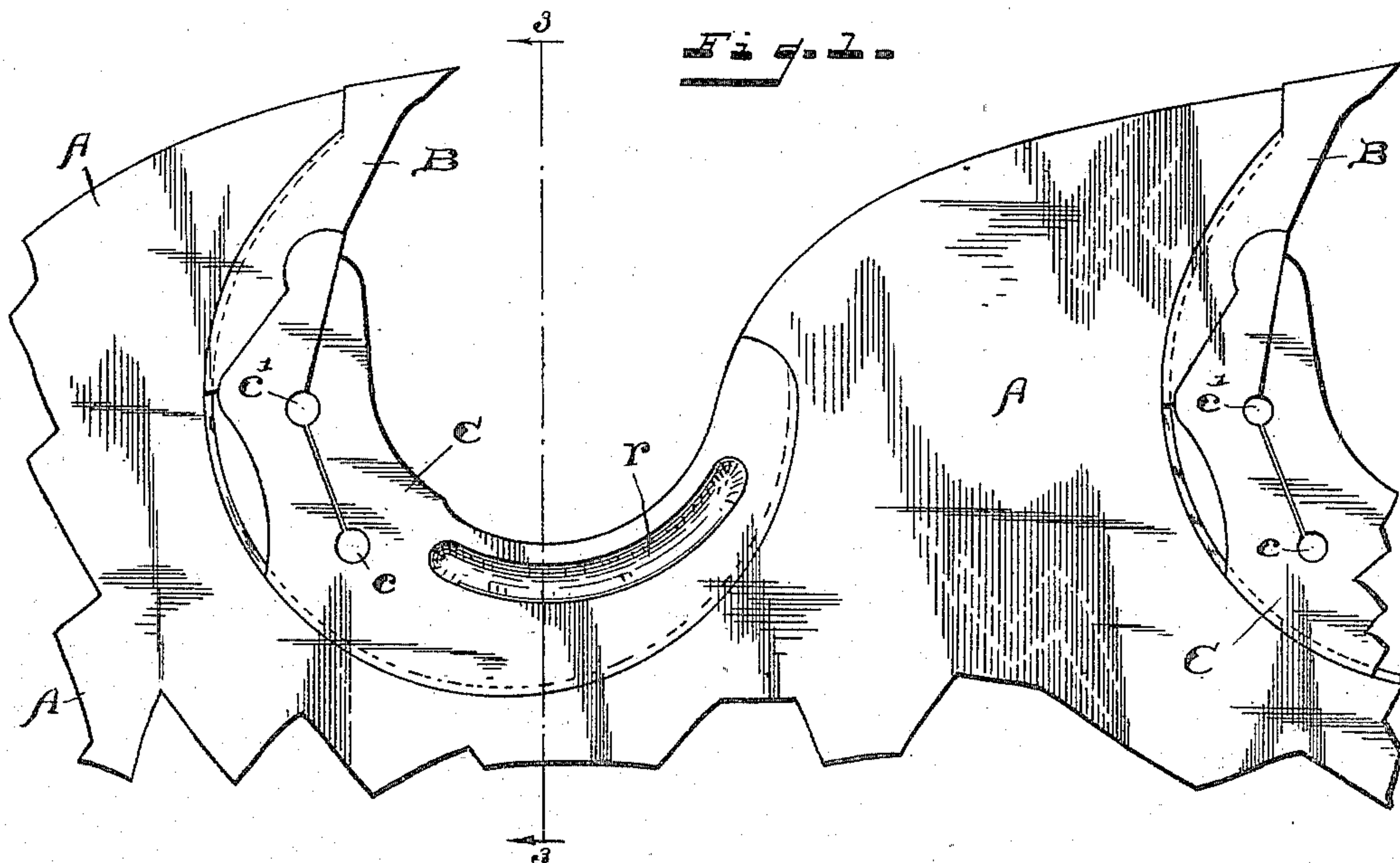


(No Model.)

A. KRIEGER.  
SAW.

No. 493,628.

Patented Mar. 21, 1893.



WITNESSES:

*F. W. Warner.*  
*J. Walsh.*

INVENTOR

*A. KRIEGER.*

*per Chester Bradford,*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

ANDREW KRIEGER, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE E. C. ATKINS & COMPANY, OF SAME PLACE.

## SAW.

SPECIFICATION forming part of Letters Patent No. 493,628, dated March 21, 1893.

Application filed July 14, 1892. Serial No. 440,062. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW KRIEGER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Saws, of which the following is a specification.

The utility of inserted tooth saws, as usually made, is frequently destroyed or impaired by careless and improper hammering, by poor or inexperienced operators, who, when the saw fails to run satisfactorily, hammer upon the holders, which thus become distorted so that they will no longer fit the sockets, while the different portions of said holders are at the same time forced out of their true relation to each other, and the sockets themselves are also liable to injury. This hammering is also liable to result in changing the tension of the saw plate, requiring it to be returned to the maker for repairs.

The object of my present invention is to produce a holder which the sort of treatment above described will not so injure as to result in difficulties of the character mentioned, and it consists in so dividing the metal of the holder that the character and quality of those portions which bear against the socket and the cutting tooth will not be materially changed by hammering upon the exposed edge.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of a fragment of a saw provided with tooth holders embodying my invention; Fig. 2 a central sectional view of the same, and Fig. 3 a transverse sectional view, looking toward the left from the dotted line 3—3 in Fig. 1.

In said drawings the portions marked A represent a fragment of a circular saw blade; B the cutting tooth or bit, and C the holder.

The saw A and tooth B are of such form and character as may be desired. They form no part of my present invention, and, therefore, are shown only for purposes of illustration, and will be described only incidentally.

The holder C in its general outline may be of any appropriate form desired. It is, however, so constructed that hammering upon

its exposed edge will produce little or no effect on the portions which bear against the socket in the saw blade, and against the surface of the tooth which it holds. Its upper end is slitted, dividing the metal into two portions, the inner one of which acts as the holder proper for the tooth, and the outer one of which serves as a stout spring to reinforce said holding part. Obviously, hammering on the spring will not structurally change said holding part, but only vary the spring part to exert a greater or less force thereon. At the lower end longitudinal cavities or recesses *r* are formed in the sides of the holder, preferably substantially parallel with the exposed edge, and extending partially through the structure. As shown most plainly in Fig. 3, a thin web of metal, only, connects the portion terminating in the exposed edge with the portion resting against the edge of the saw or socket therein, and, therefore, the effect of hammering on said exposed edge would only be to batter it, and not to appreciably affect the character of the other portions of the holder. By these various means I have produced a holder which will not greatly change under the sort of abuse to which such holders are usually subjected, and so have secured the desired result.

By preference I make the slit in the upper end of the holder to extend in two directions. This I do by forming two holes *c* and *c'* in substantially the positions shown, and extending the slit from one to the other and thence to the outside at or near the end of the holder. This secures a division of the metal more nearly equal than could be had if the slit were made on one straight line.

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

1. A holder for the teeth of inserted tooth saws, the upper end of which is slitted or divided, the outer portion constituting a support for the inner, and also serving as a protector for said inner portion, or holder proper, substantially as set forth.

2. A holder for insertible saw teeth provided with cavities or recesses extending along its sides near its exposed edge and extending into but not through the structure substantially

dividing said edge from the portion in contact with the saw plate.

3. A holder for insertible saw teeth, wherein the exposed edge is divided from the portion  
5 which bears against the saw plate by a slit at the upper end and longitudinal cavities or recesses in its sides at the lower end.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 7th day of July, A. D. 1892.

ANDREW KRIEGER. [L. S.]

Witnesses:

CHESTER BRADFORD,  
J. A. WALSH.