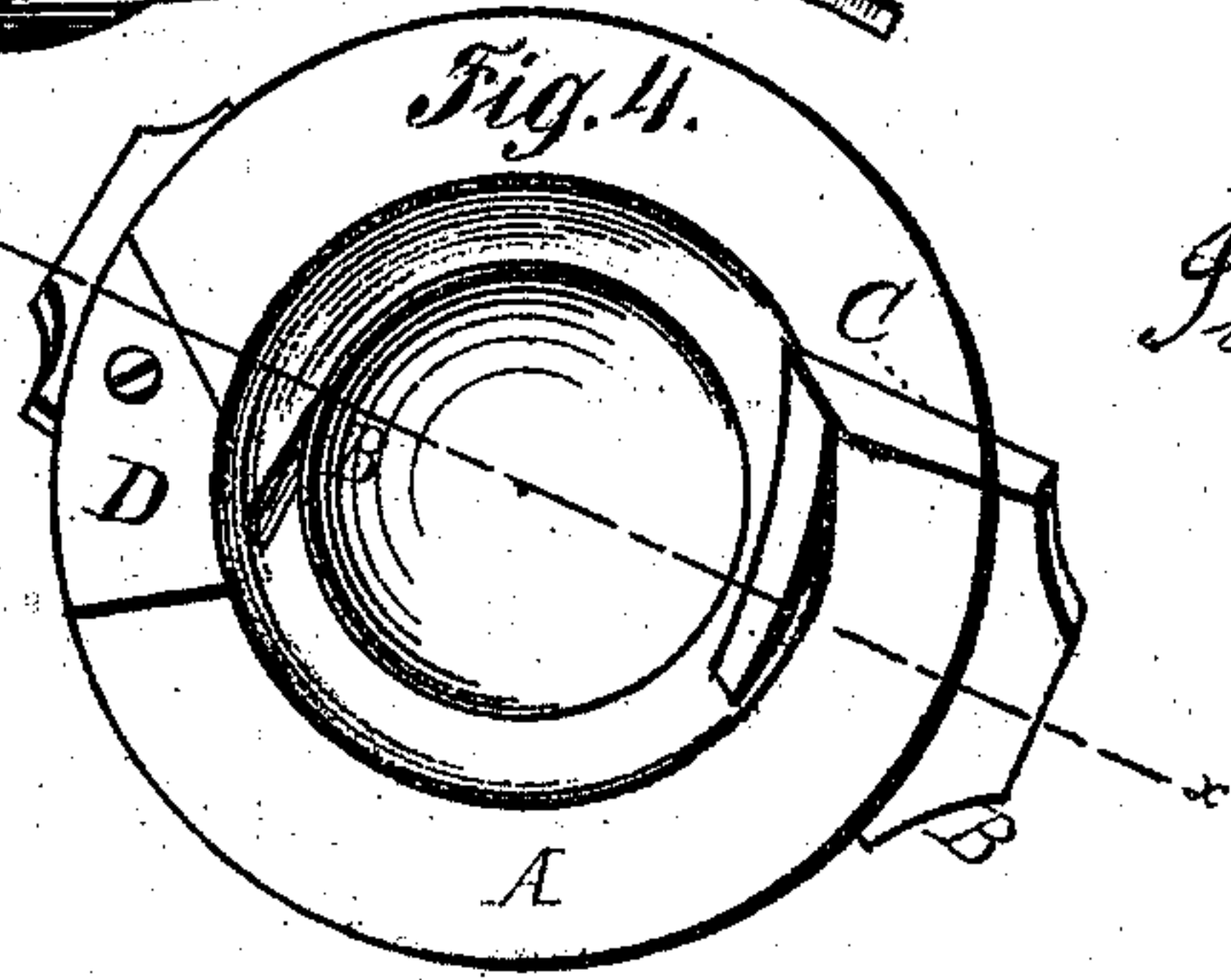
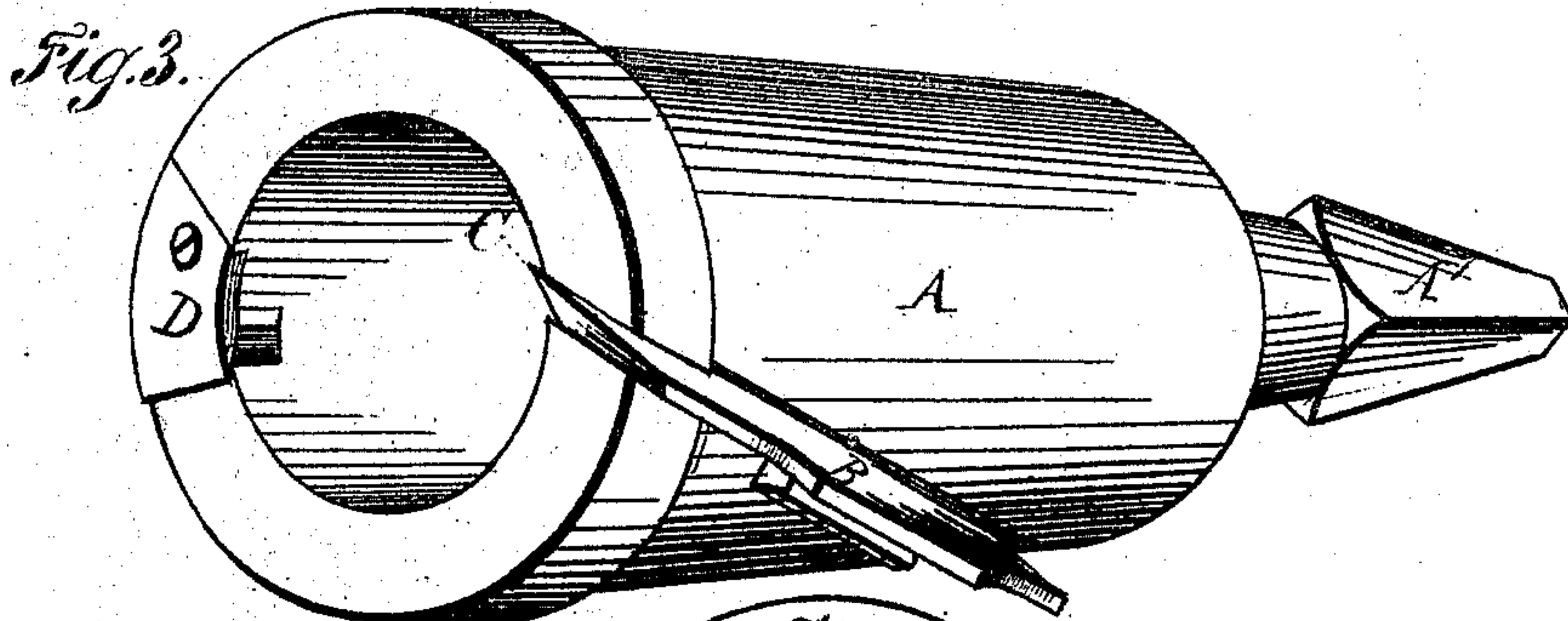
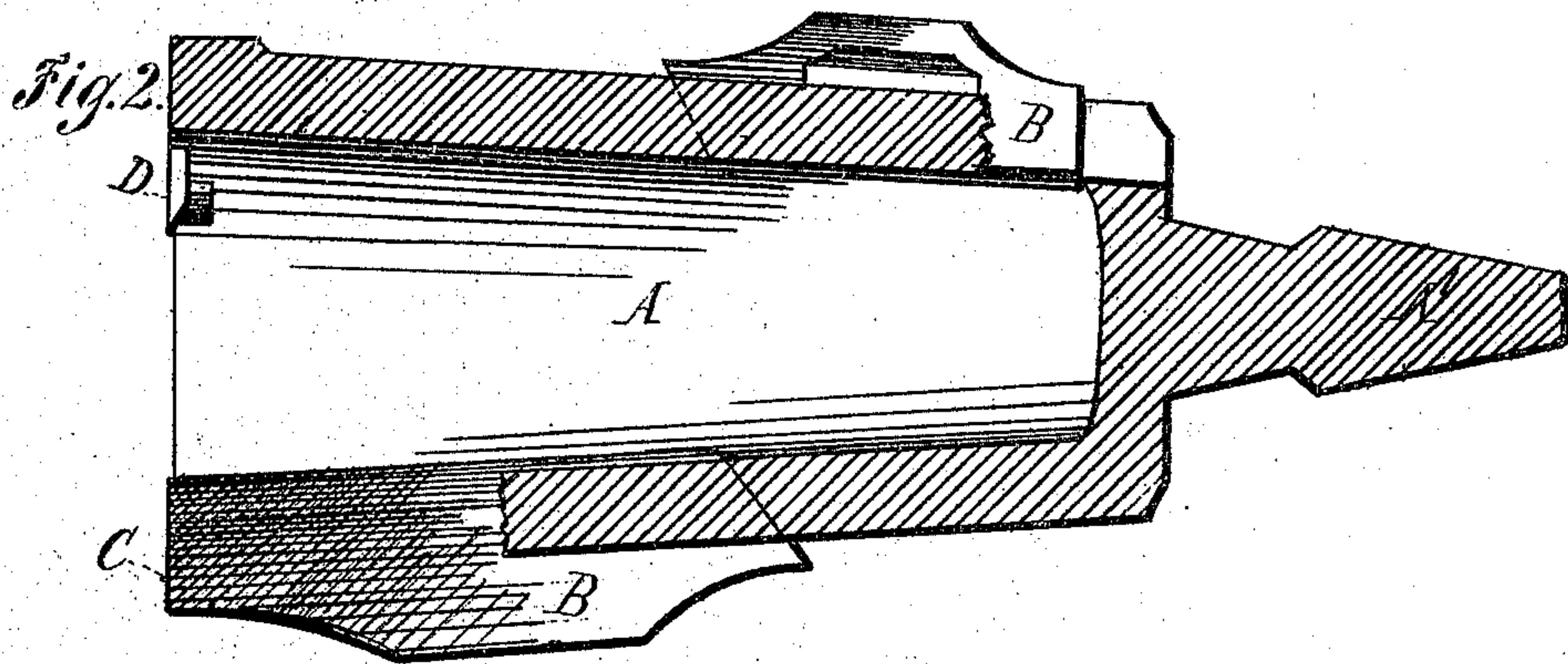
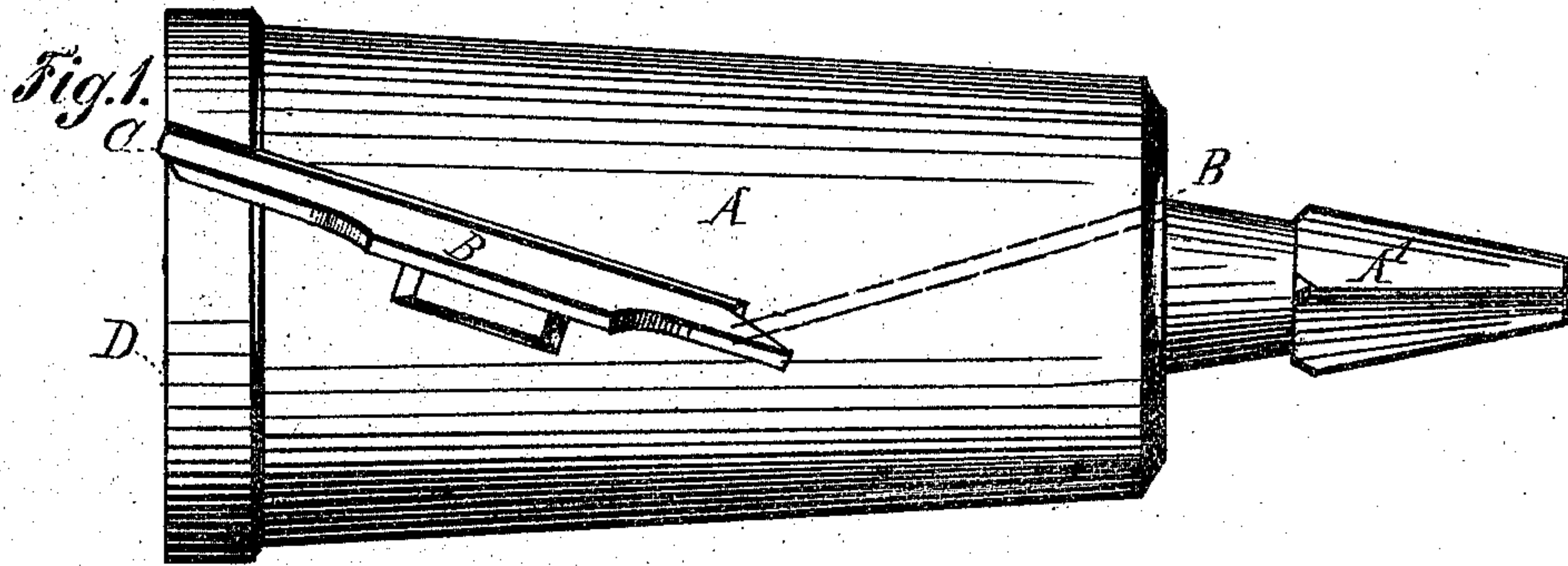


*I. H. Van Wie,*

*Hollow Auger.*

*No. 105744.*

*Patented July 26, 1870.*



*Witnesses:*  
*Fred. Arto's*  
*Baltis De Long*

*Inventor:*  
*Isaac H. van wie.*



# United States Patent Office.

ISAAC H. VAN WIE, OF CLARKSVILLE, NEW YORK.

*Letters Patent No. 105,744, dated July 26, 1870.*

## IMPROVEMENT IN HOLLOW AUGER.

The Schedule referred to in these Letters Patent and making part of the same

*To all whom it may concern:*

Be it known that I, ISAAC H. VAN WIE, of Clarksville, in the county of Albany and State of New York, have invented a certain new and useful Improvement in Hollow Augers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which makes part of this specification, and in which—

Figure 1 represents a plan view;

Figure 2, a longitudinal central section through the frame, at the line *xx* of fig. 4, the knives being left in place; and

Figure 4, an end view.

My invention belongs to that class of augers used in forming tapering tenons, and is designed more especially for forming or shaping the ends of wooden axle-trees; and

The improvement consists in a hollow frame, A, which may be cast of metal of the shape of a frustum of a cone, extending into a shank, A', properly formed for the application of power, and having slots at intervals oblique to its longitudinal axis, for the reception of knives B B, the leading one of which has its advance end formed into a cutting-edge or knife, C.

The knives may be made adjustable by means of slots and set-screws, in any well-known way.

A knife, D, is let into the base of the frame a depth

equal to the thickness thereof, and secured in place by means of a screw passing through a hole in the knife, and entering the frame. Sufficient throat is provided for the escape of chips from each knife.

The operation is as follows:

The joist for the axle-tree, having its ends tapered sufficiently to enter the bore for a short distance, the auger is then placed upon one end so formed, and power applied to the shank A' by means of a brace or other suitable mechanism, and, as it is turned to the right, the knives C and D cut away the wood in contact therewith, and as the auger advances, and the wood enters therein, the knives B B give it the form required.

I am aware that hollow augers have long been in use, and therefore do not broadly claim such device; neither do I claim the knives arranged obliquely to the longitudinal axis of the augers; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The combination of the frame A and its shank, with the knives B B and D, as described and shown, for the purpose set forth.

ISAAC H. VAN WIE.

Witnesses:

N. A. DE LONG,  
DAVID A. DE LONG.