

(No Model.)

E. BENJAMIN.  
MOLDING CUTTER.

No. 410,572.

Patented Sept. 10, 1889.

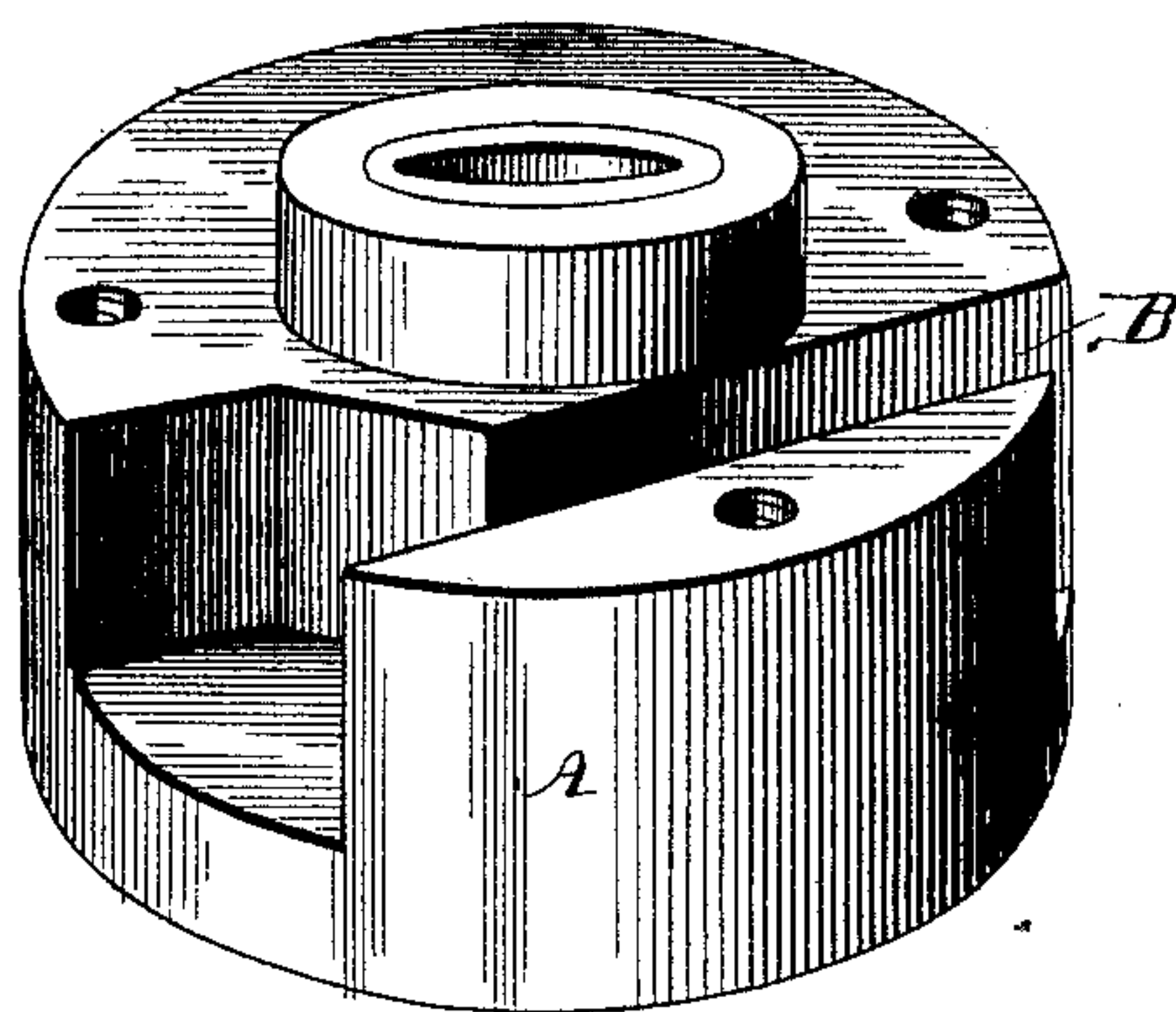
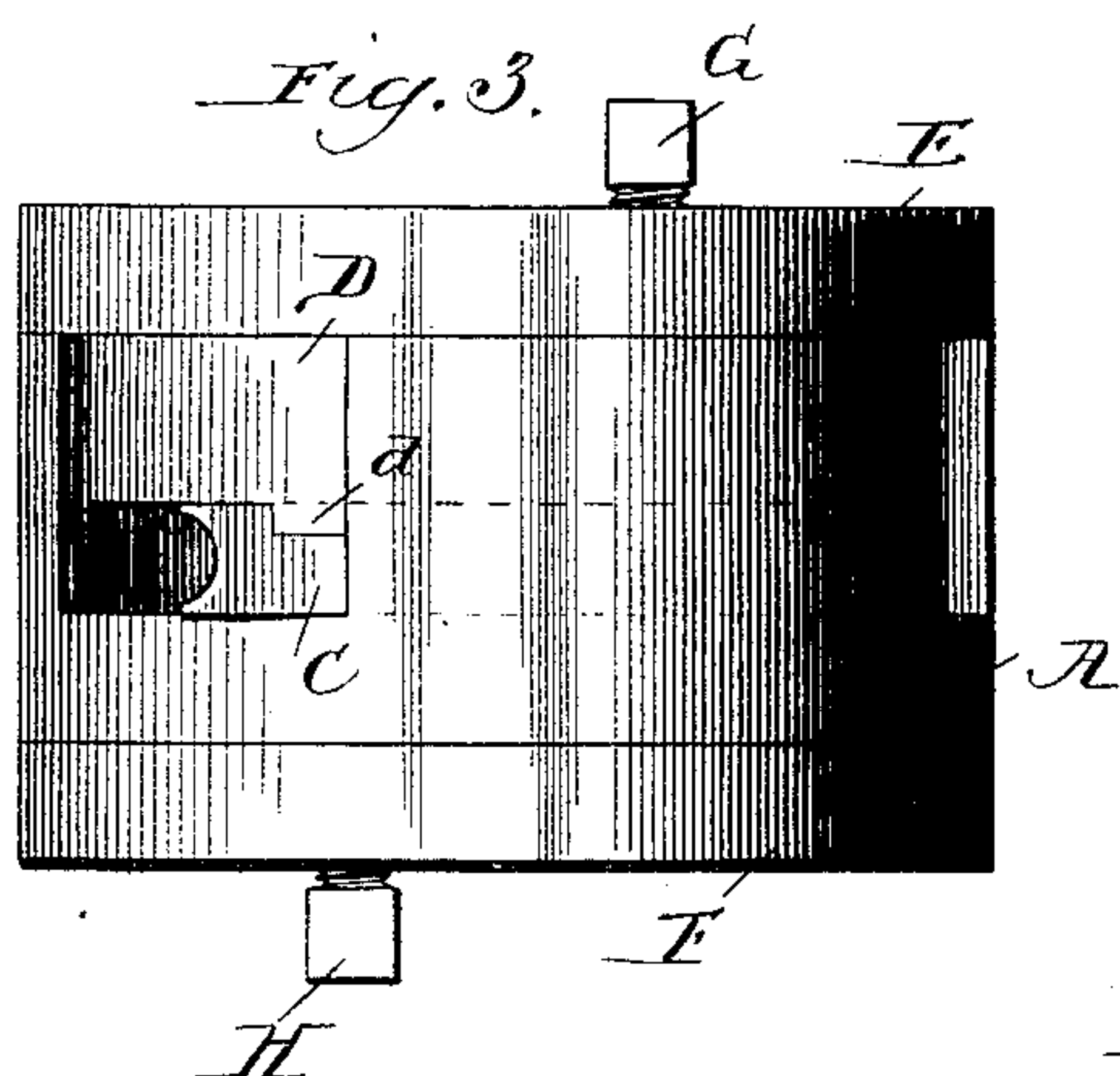
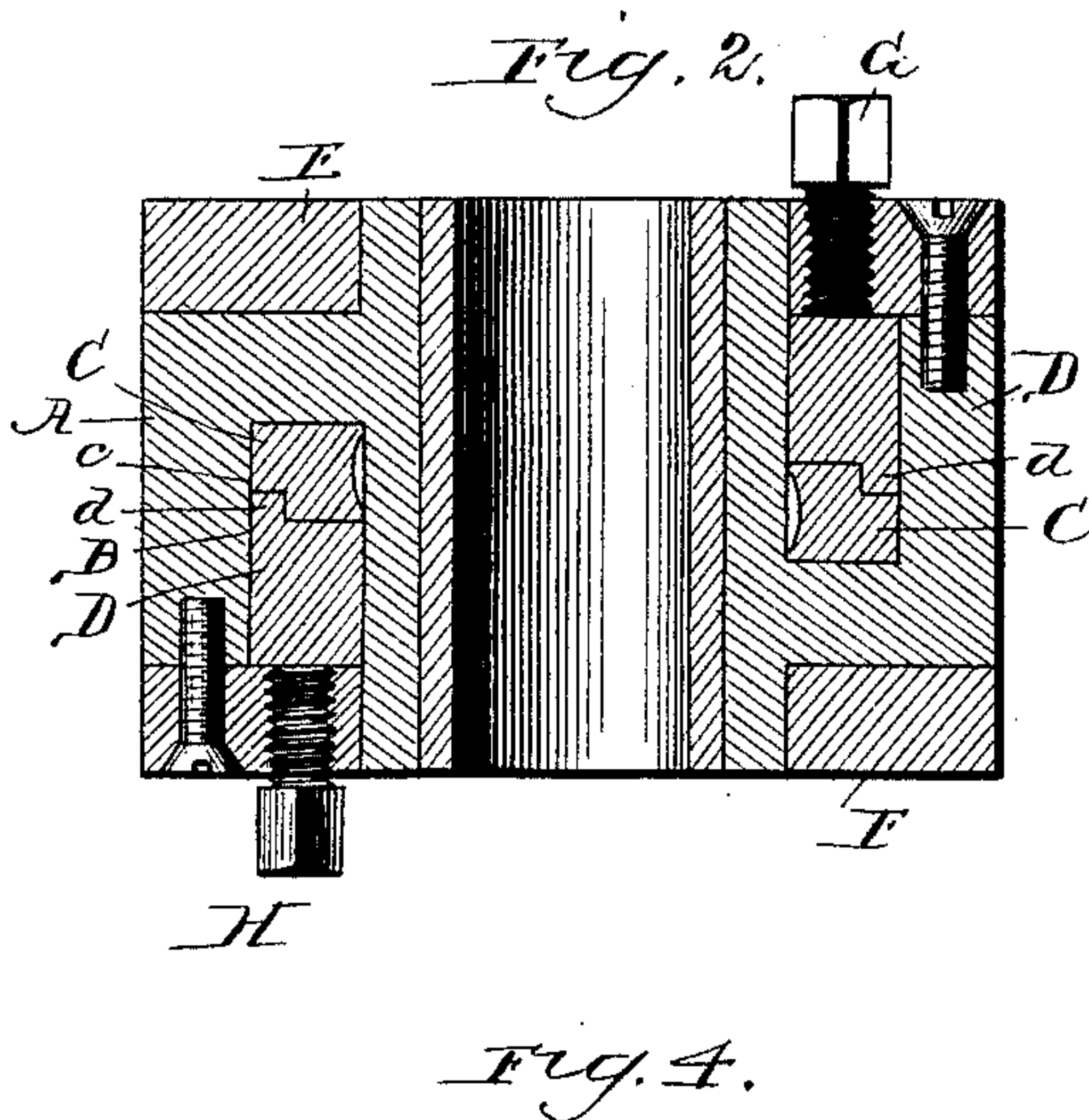
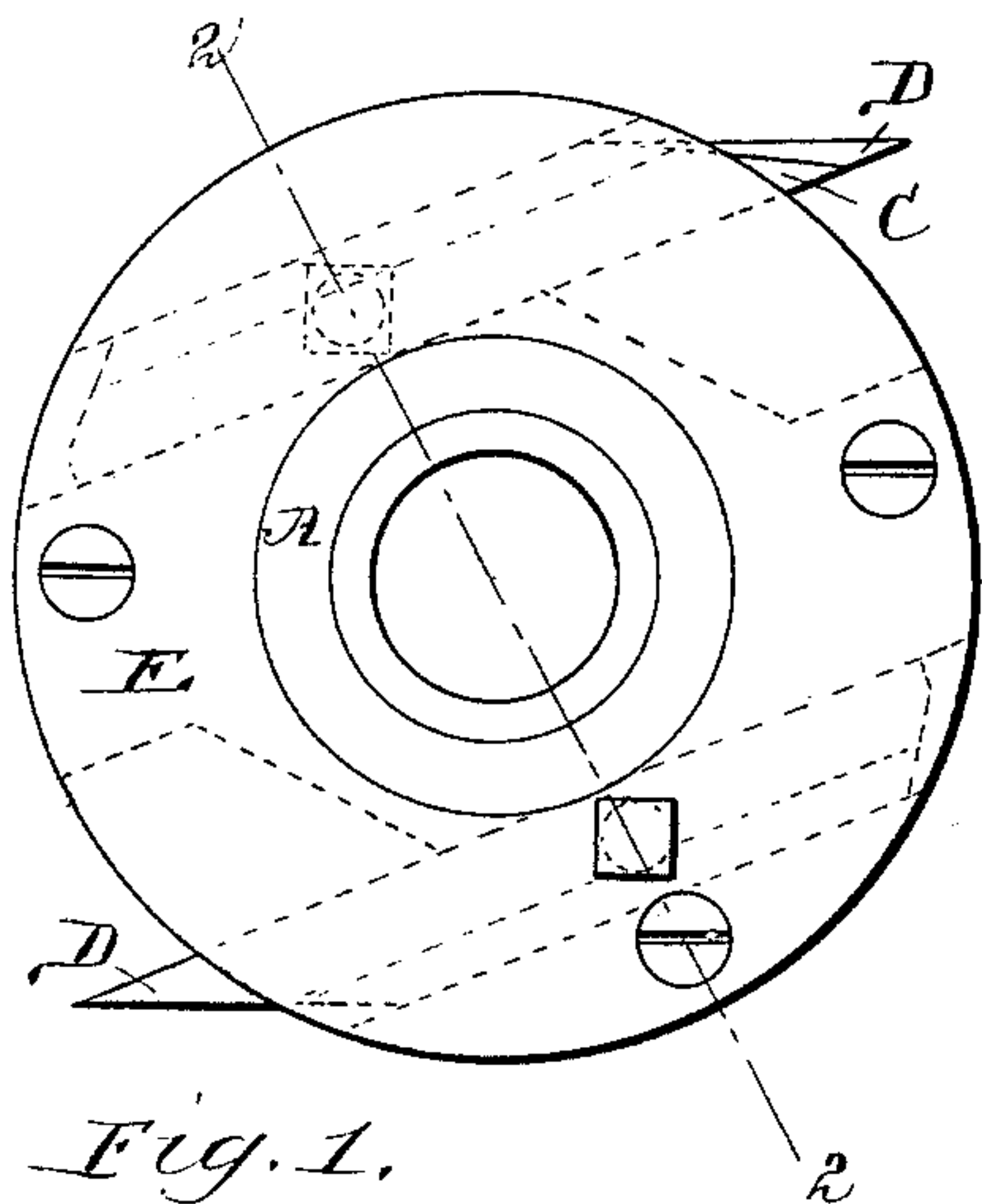


Fig. 5.

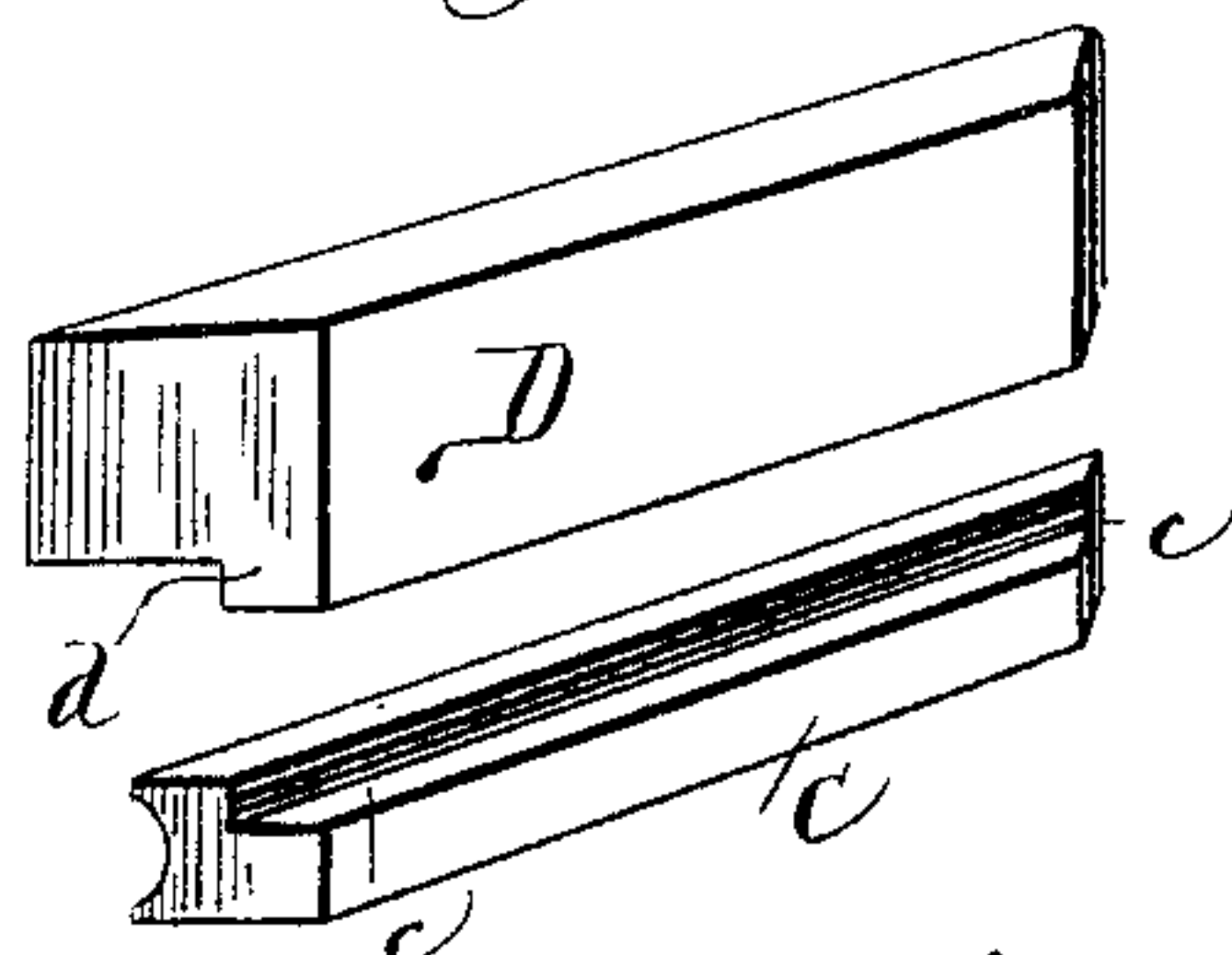
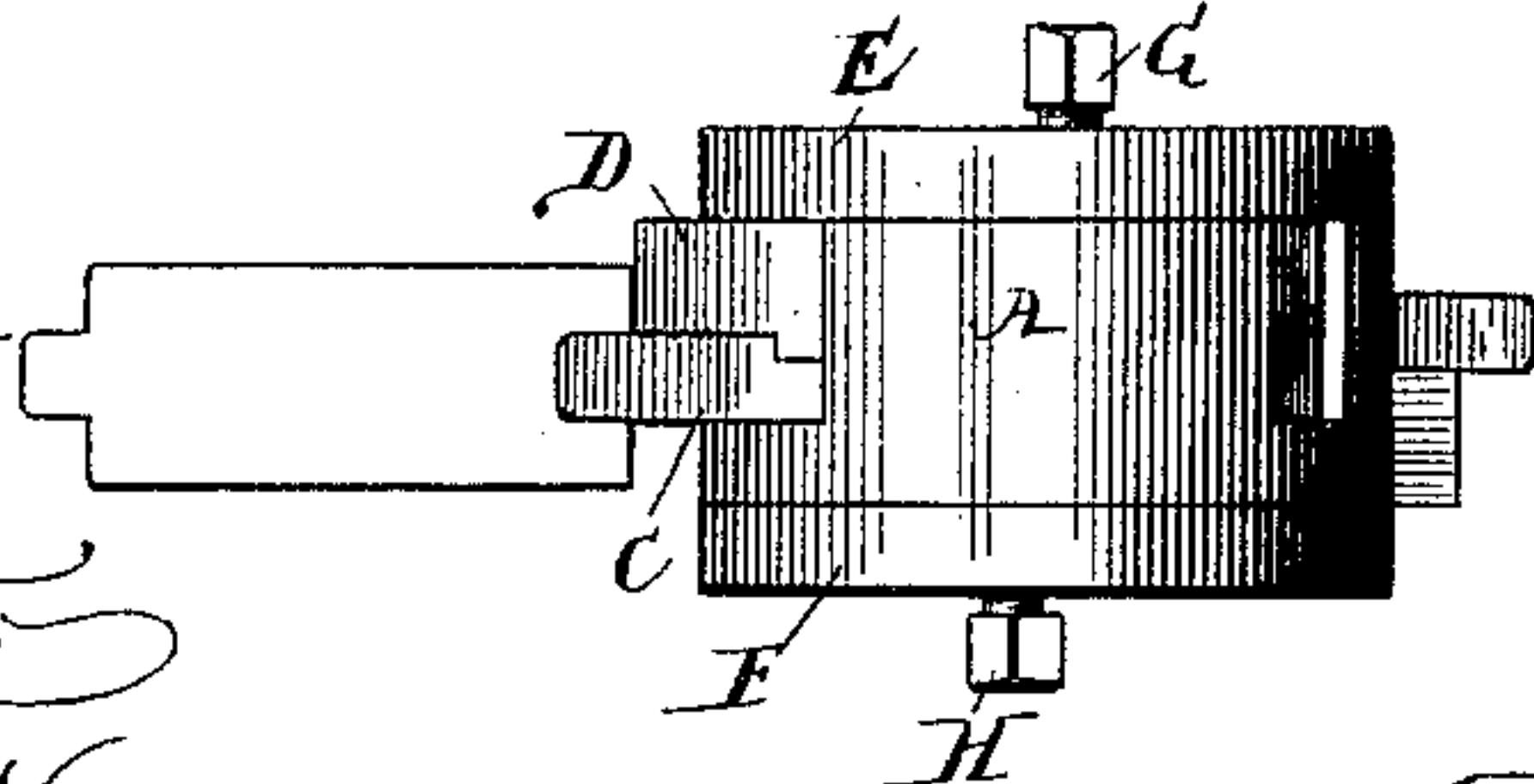


Fig. 6.

Witnesses  
W. Posner  
P. H. T. Mason



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# UNITED STATES PATENT OFFICE.

EDWIN BENJAMIN, OF SOUTH EVANSTON, ILLINOIS, ASSIGNOR TO THE  
BENJAMIN MACHINE COMPANY.

## MOLDING-CUTTER.

SPECIFICATION forming part of Letters Patent No. 410,572, dated September 10, 1889.

Application filed May 1, 1889. Serial No. 309,162. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN BENJAMIN, of South Evanston, in the county of Cook and State of Illinois, have invented certain new  
5 and useful Improvements in Molding-Cutters for Wood-Working Machines, of which the following is a specification.

In making cutters for moldings it is desirable, both as a matter of convenience in grinding and economy in making and security from cracking in hardening, that cutters which form the outline of the molding should be made in separate pieces, which when placed together will produce the desired shape, and this  
15 expedient is therefore frequently resorted to. The division-lines between the cutters are determined by the angles in the shape to be produced for the most part, and it will thence result that sometimes the cutter-face will be  
20 very narrow, and hence the cutter will lack strength unless made very deep. The latter is an expedient which is wasteful of material and necessitates the use of a larger cutter-head than would otherwise be necessary. The  
25 latter is decidedly objectionable in many instances. In the cutters shown in the accompanying drawings and herein described I have endeavored to avoid the objectionable features mentioned.

30 In the drawings, Figure 1 is a plan view, Fig. 2 a section on line 2 2, Fig. 1, Fig. 3 a side elevation, and Fig. 4 a perspective view, of a cutter-head adapted to be fitted with my improved cutters. Fig. 5 is a perspective of  
35 the cutters detached. Fig. 6 is a side elevation of the cutters and head on a smaller scale than Fig. 3, showing them operating upon a board to form a groove on its edge.

40 The main or central portion of the cutter-head A has formed in it the grooves B B for the reception of the cutters C D. Rings E F

are attached to each end of the cutter-head, and set-screws G H, passing through the rings, abut against the cutters when placed in the grooves B B and keep them in place. As the  
45 cutter C is smaller in both sectional dimensions than cutter D, it is deficient in strength and stiffness unless the cutter D be made excessively large, which in turn necessitates an increase in the size of the cutter-head be-  
50 yond what would otherwise be necessary, and the like difficulty occurs with other cutters for making moldings and various beaded or irregular surfaces.

In order to re-enforce the weaker cutter, I  
55 fit the two cutters together, as best shown in Fig. 5, by cutting a shallow rabbet or groove *c* along or near the back or outer edge of the cutter C and making a tongue *d* to correspond therewith on the cutter D. The stiff-  
60 ness of cutter D will thus operate to keep the cutter C from springing or being displaced outwardly. I prefer to make the groove at the outer edge of the smaller cutter, as shown, because it is more remote from the cutting-  
65 edge and involves the least work in the manufacture of the cutters.

I claim—

1. The combination, in heads for cutting moldings, of cutters fitted to each other by  
70 tongues and grooves.

2. The combination, in heads for cutting moldings, of two or more cutters united to produce the desired outline, the smaller cutter or cutters being rabbeted at or near its  
75 outer edge and the larger being tongued to correspond, as and for the purpose set forth.

EDWIN BENJAMIN.

Witnesses:

P. H. T. MASON,  
J. I. VEEDER.