

No. 793,097.

PATENTED JUNE 27, 1905.

G. H. RICE.  
WOOD PLANER HEAD.  
APPLICATION FILED FEB. 13, 1905.

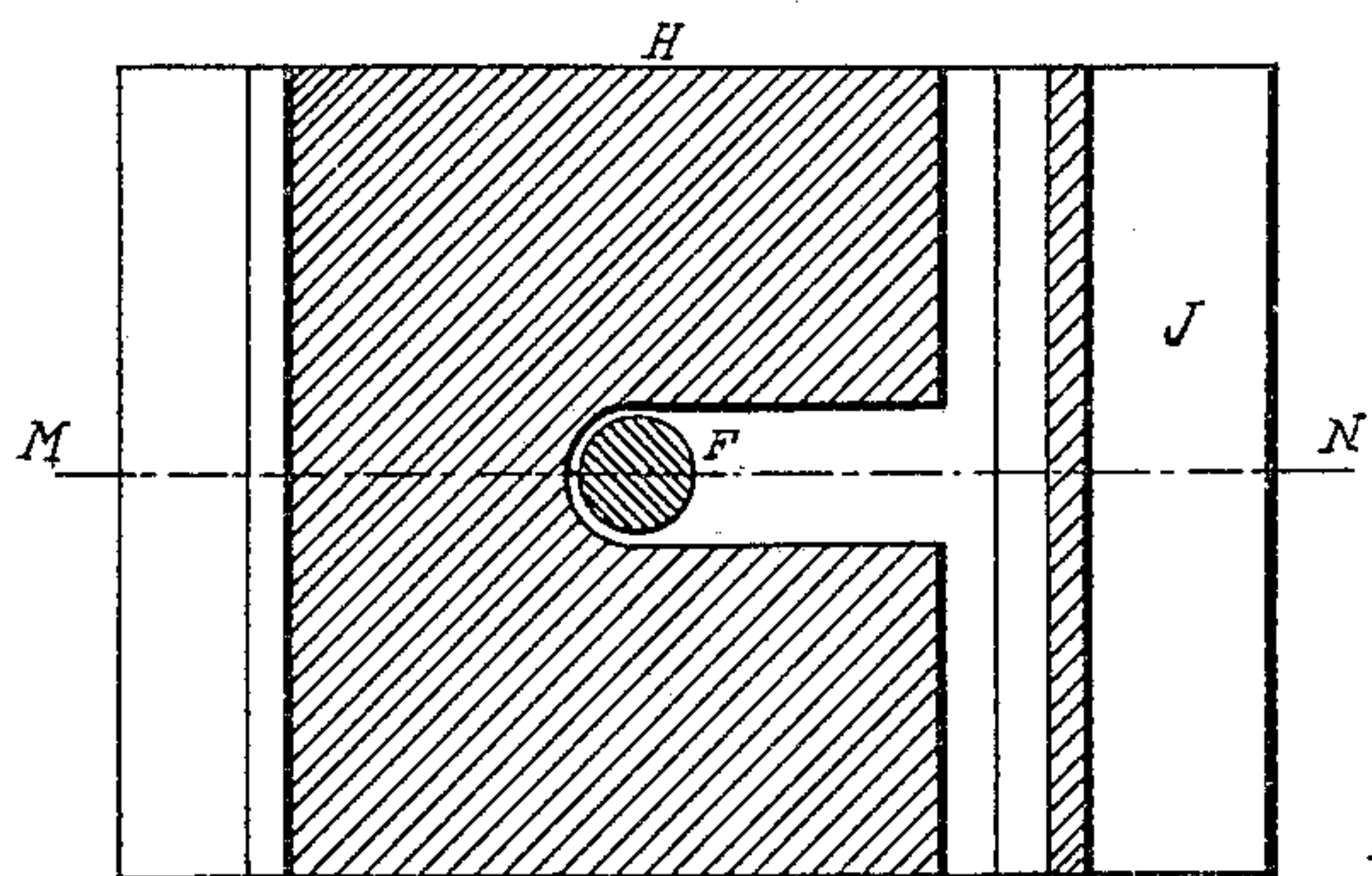


Fig. 2.

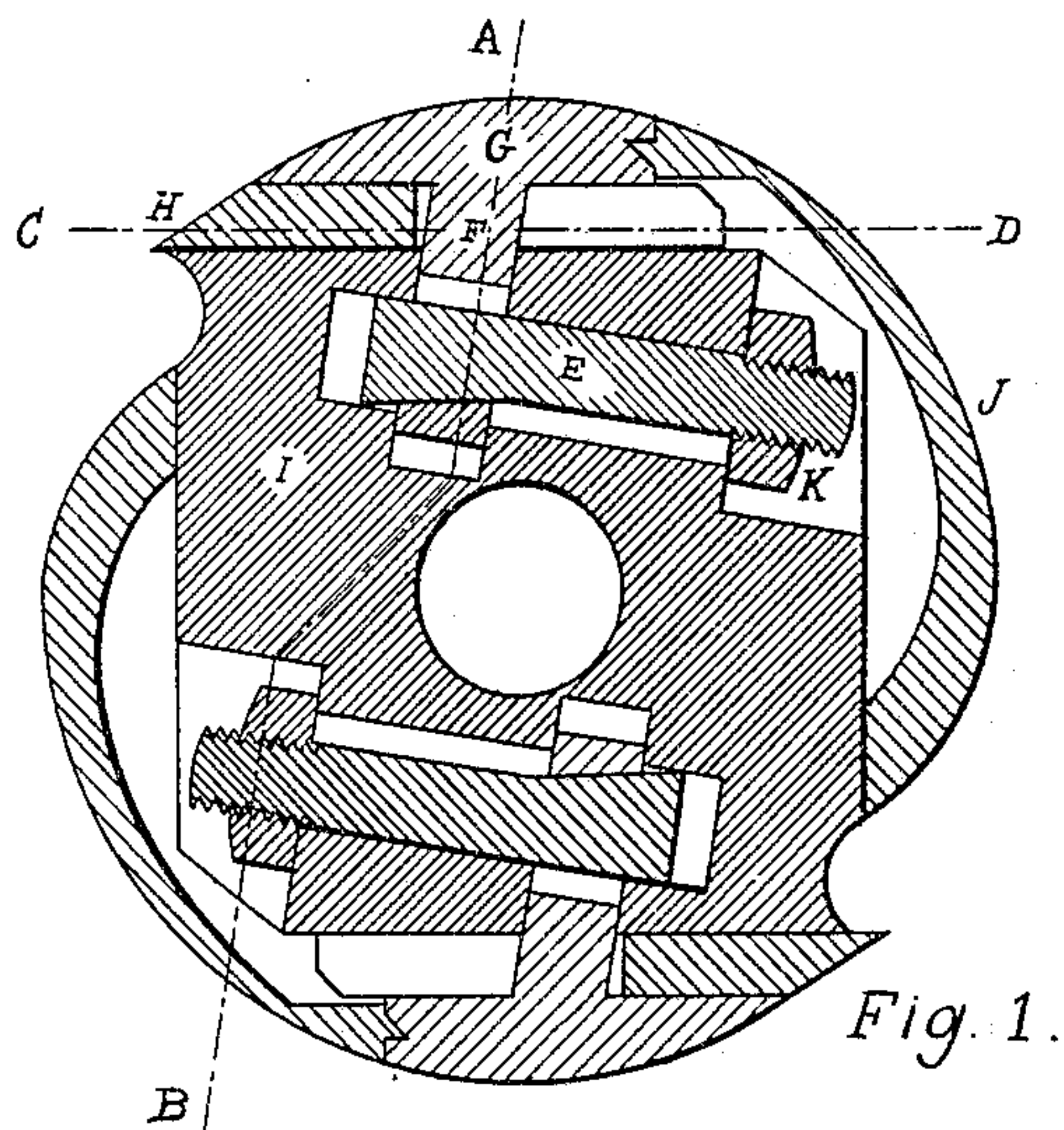


Fig. 1.

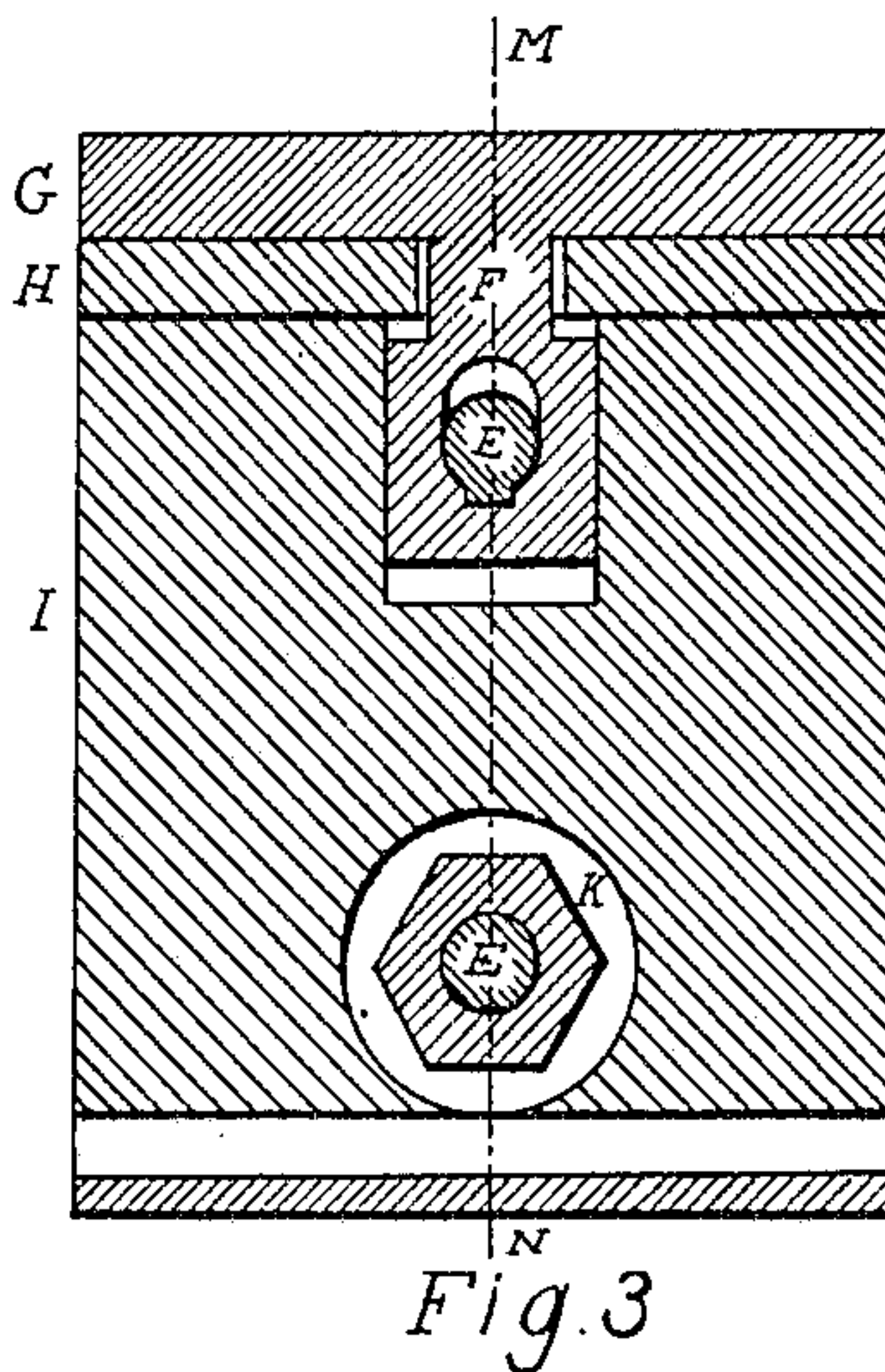


Fig. 3.

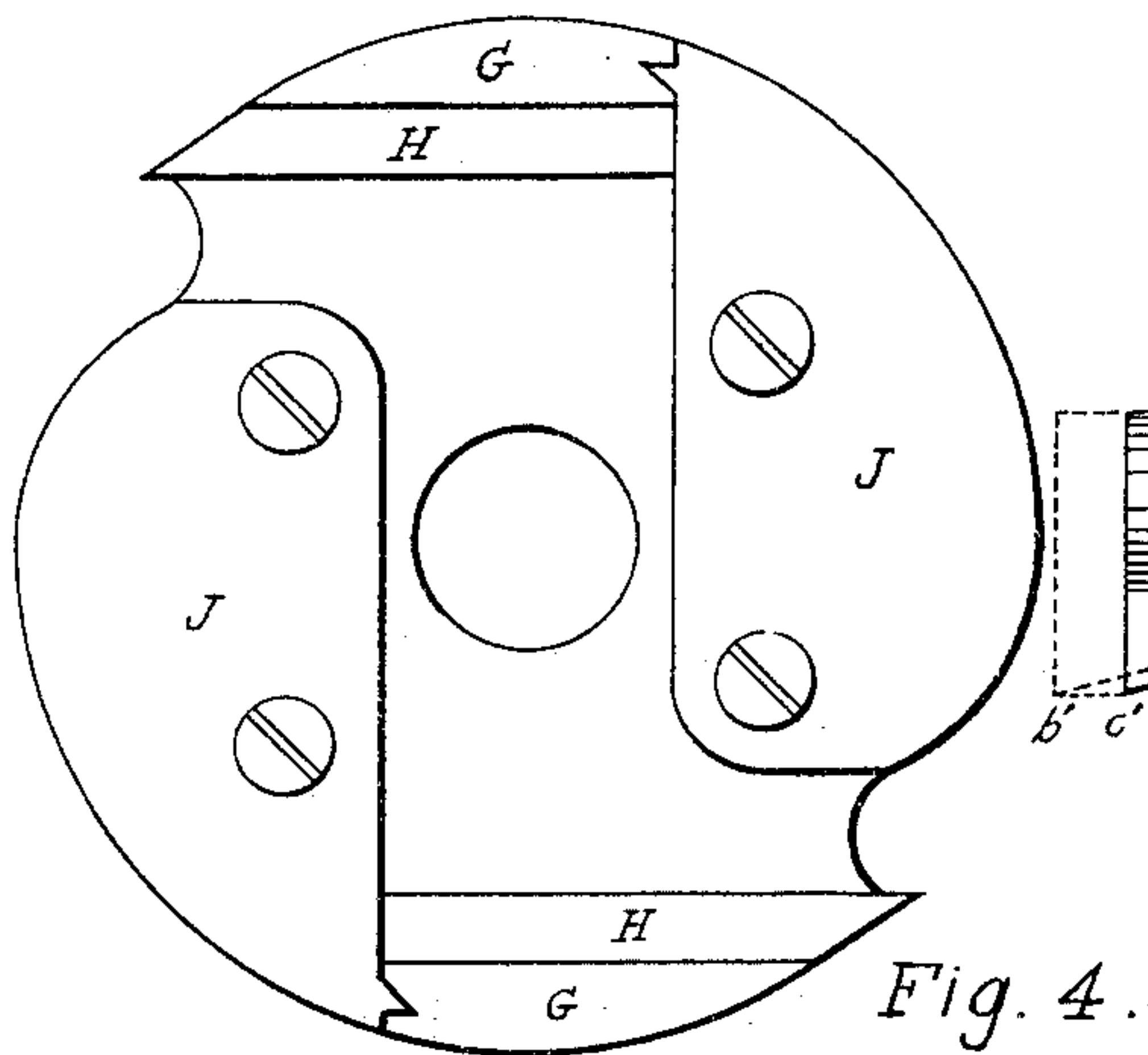


Fig. 4.

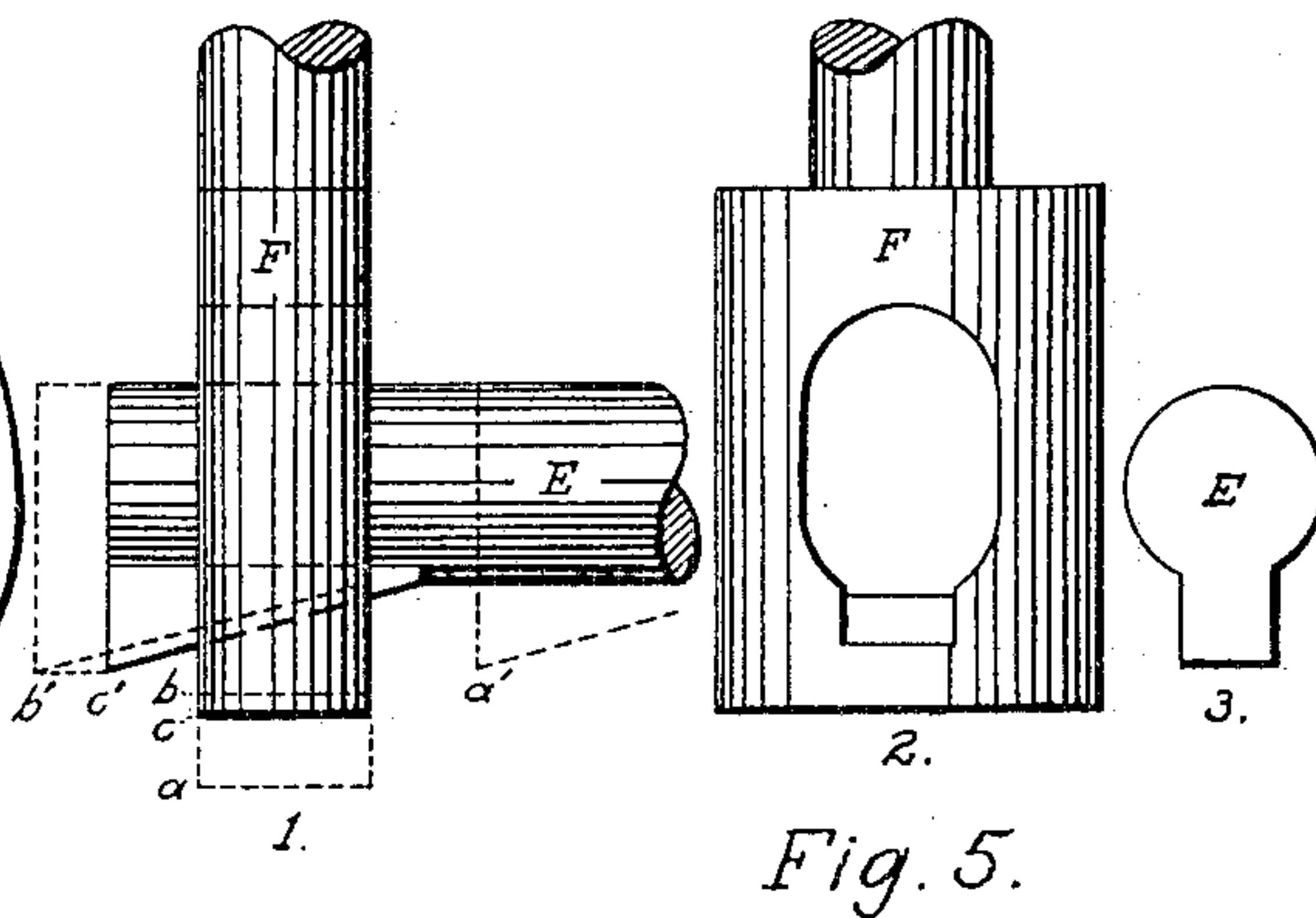


Fig. 5.

Witnesses.

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per  
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# UNITED STATES PATENT OFFICE.

GEORGE HENRY RICE, OF URBANA, ILLINOIS.

## WOOD-PLANER HEAD.

SPECIFICATION forming part of Letters Patent No. 793,097, dated June 27, 1905.

Application filed February 13, 1905. Serial No. 245,446.

*To all whom it may concern:*

Be it known that I, GEORGE HENRY RICE, a citizen of the United States, residing at Urbana, in the county of Champaign and State of Illinois, have invented a new Construction of Wood-Planer Head, of which the following is a specification.

My invention relates to the improvements in construction of a wood-planer head.

The objects of my improvements are, first, the fastening means for clamping the knife to the head, comprising a clamping cap-plate and a wedge, bolt, and nut sealed, respectively, in a socket and recess in said body, and a curved shield to said body; second, to inclose all nuts with a curved shield to prevent broken nuts from flying and to reduce air resistance. I attain these objects by the parts illustrated in the following drawings, in which—

Figure 1 is a section perpendicular to the axis of the head or a section on M N of Figs. 2 and 3. Fig. 2 is a section through the knife parallel to the axis of the head or a section on C D of Fig. 1. Fig. 3 is a section through the head parallel to its axis or a section on A B of Fig. 1. Fig. 4 is an end view of the head. Fig. 5 is a detailed view of the two pins the action of which constitutes the method of fastening the knife to the head. (Fig. 5 is drawn to a larger scale than the other figures.)

Similar letters refer to similar parts in the several views.

I is the main body of the head and is bored on opposite sides at suitable distances to receive pins F, which are firmly secured in caps G. At right angles to the holes just described, I is bored to receive bolts E. These holes are counterbored to receive nut K. A sufficient portion of the corner of the body I is removed to permit shield J to be placed in position.

G is a solid steel cap in which F is firmly secured. Cap G rests on knife H and holds the knife in position on head I. Cap G is tightened on knife H by action of E and F. Pin F is shown in detail in 1 and 2 of Fig. 5. Bolt E is shown in 1 and 3 of Fig. 5. To put H in position for working, place F in the body of the head and push to relative position *a*. (Shown in 1 of Fig. 5.) Push bolt E through F to position *b'*. Now raise F to *b*, and the knife H can be inserted between I and cap G. Tighten nut K and bolt E will be drawn to position *c'* and pin F to position *c*.

J is a cast-steel shell having closed ends, as shown in Fig. 4. I is milled to receive ends of J, and J is held in position by a dovetailed joint in G and screws in end of I.

I am not aware that there has ever been constructed a planer-head having a similar method of clamping knives or having a curved shield.

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

The combination with a polygonal cutter-head body and a bit-clamping cap having a curved exterior and a shield secured to said body with its outer surface continuing the curve of said cap around to a back face of the cutter-head body and detachable means for securing said cap inclosed by said shield whereby a substantially circular surface is given the cutter-head and the danger from accidental detachment of said securing means is eliminated.

In testimony whereof I have signed my name to this specification, at Urbana, Illinois, February 11, 1905, in the presence of two subscribing witnesses.

GEORGE HENRY RICE. [L. S.]

Witnesses:

G. E. HINER. [L. S.]

A. P. LANING. [L. S.]