

J. ROSS.  
Matcher-Head.

No. 219,830.

Patented Sept. 23, 1879,

FIG. 1.

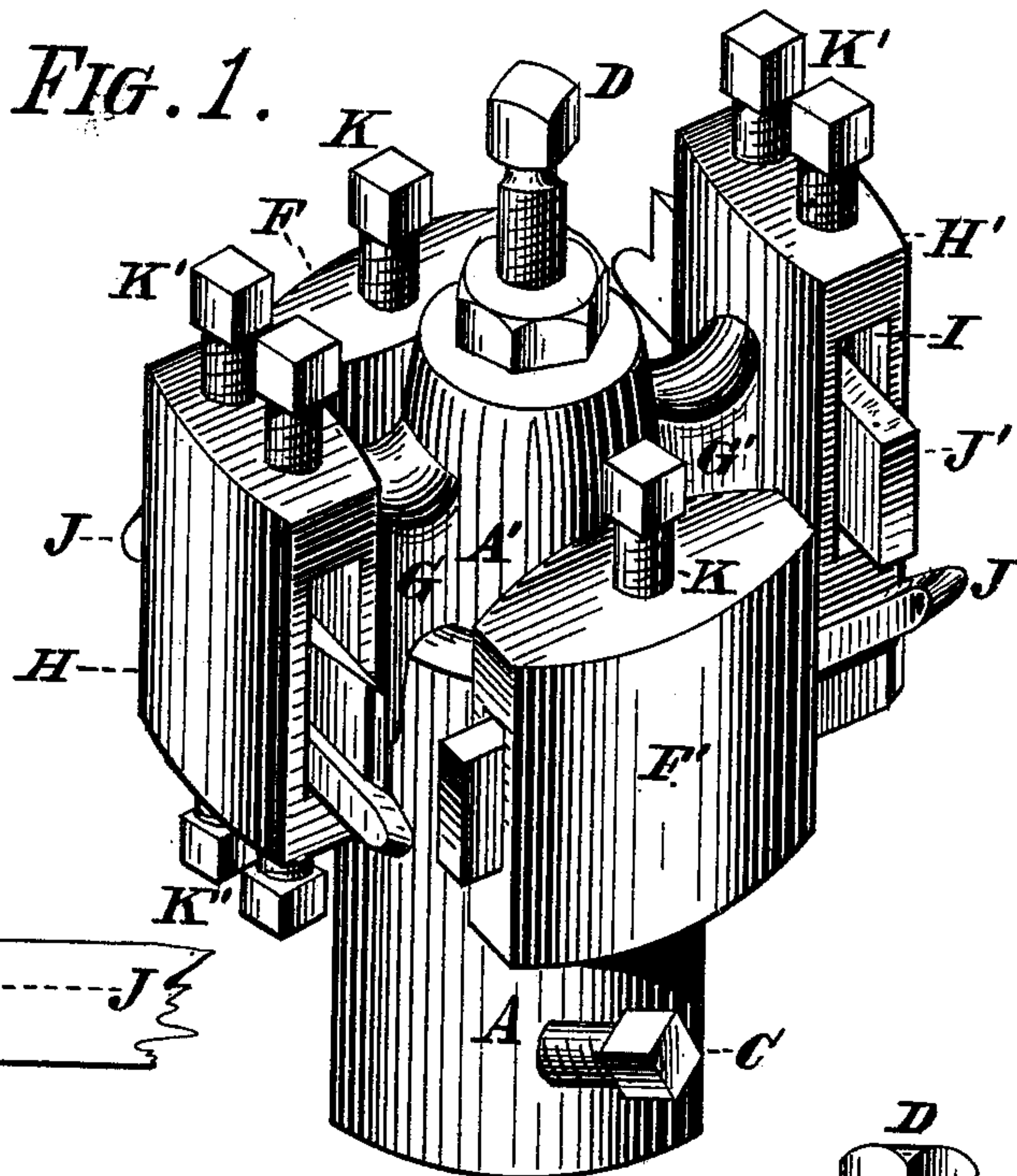


FIG. 4.

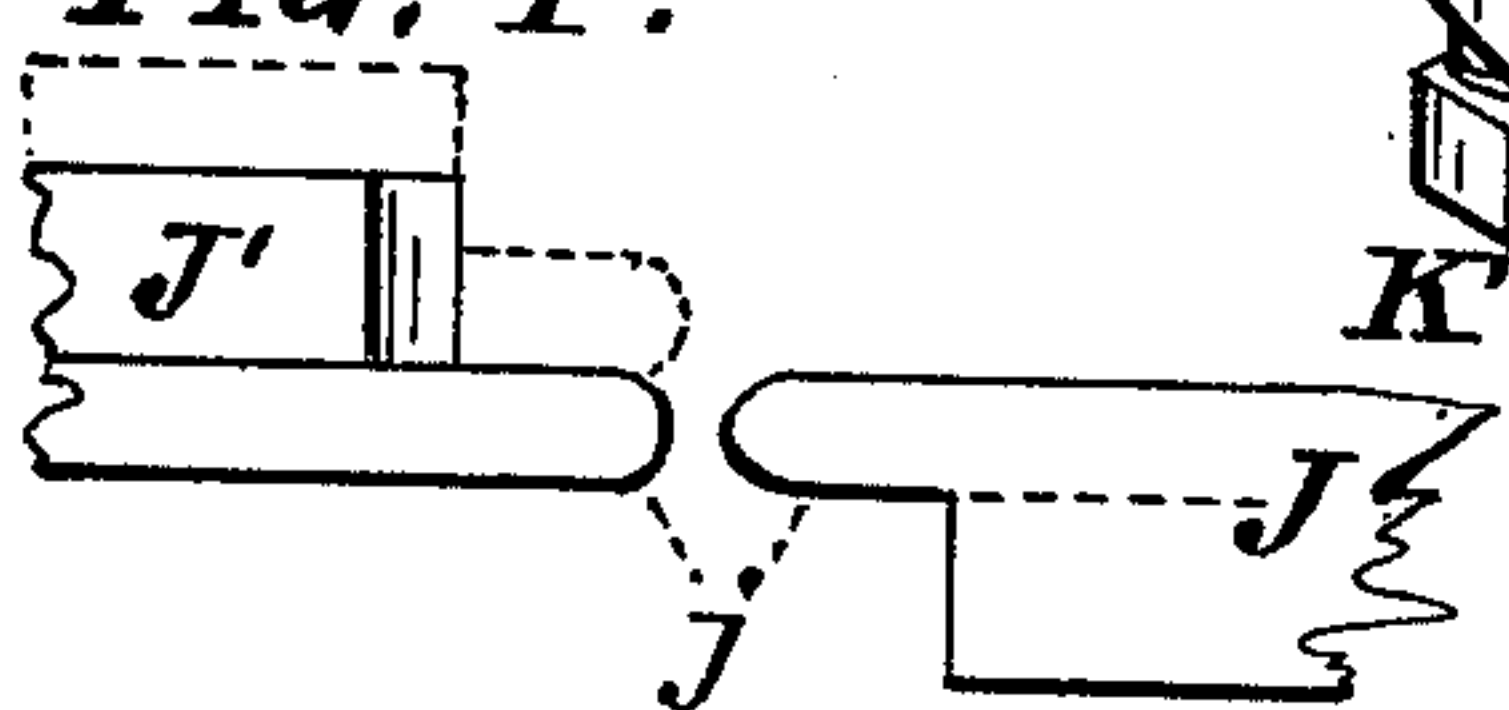


FIG. 2.

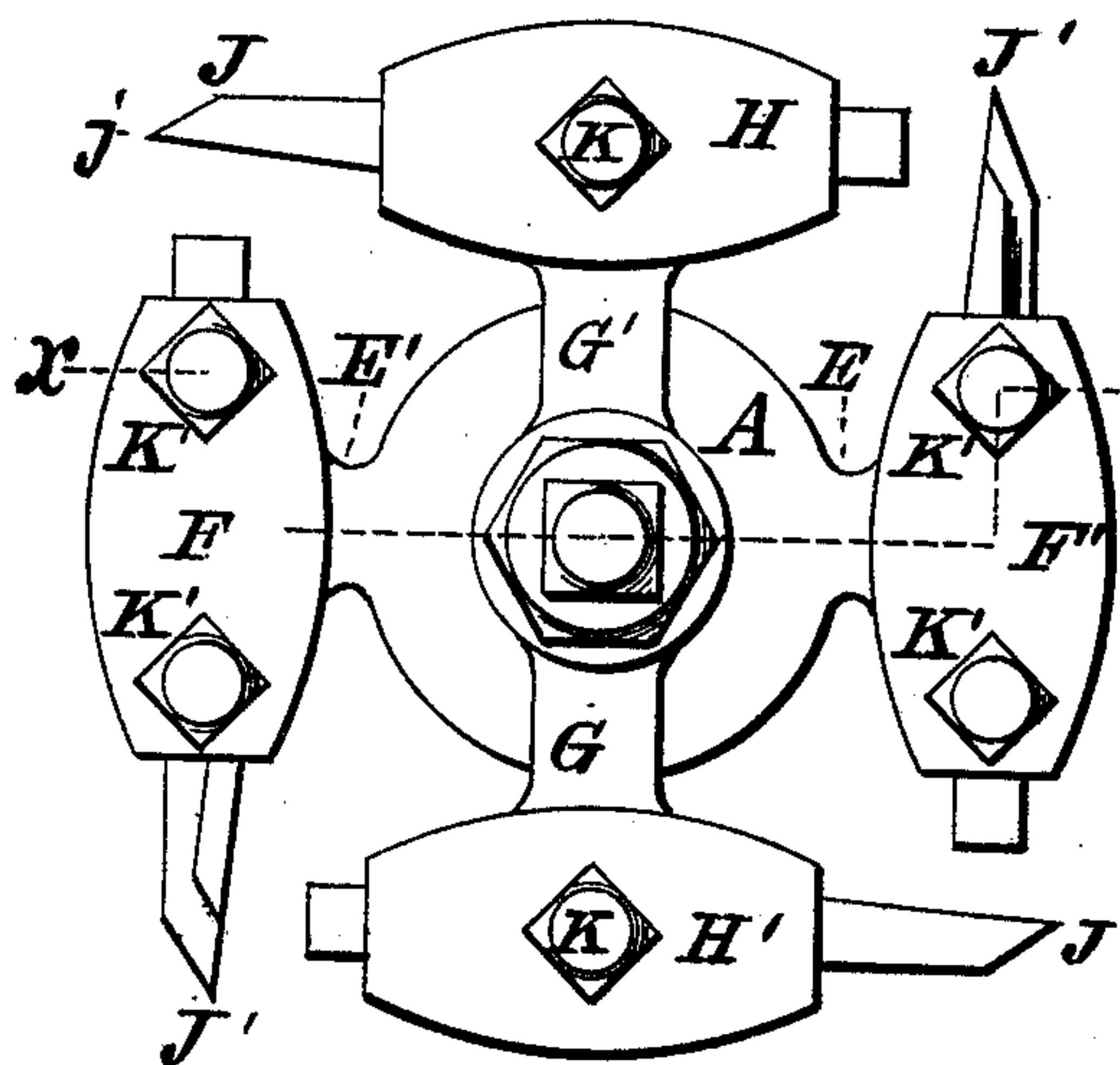
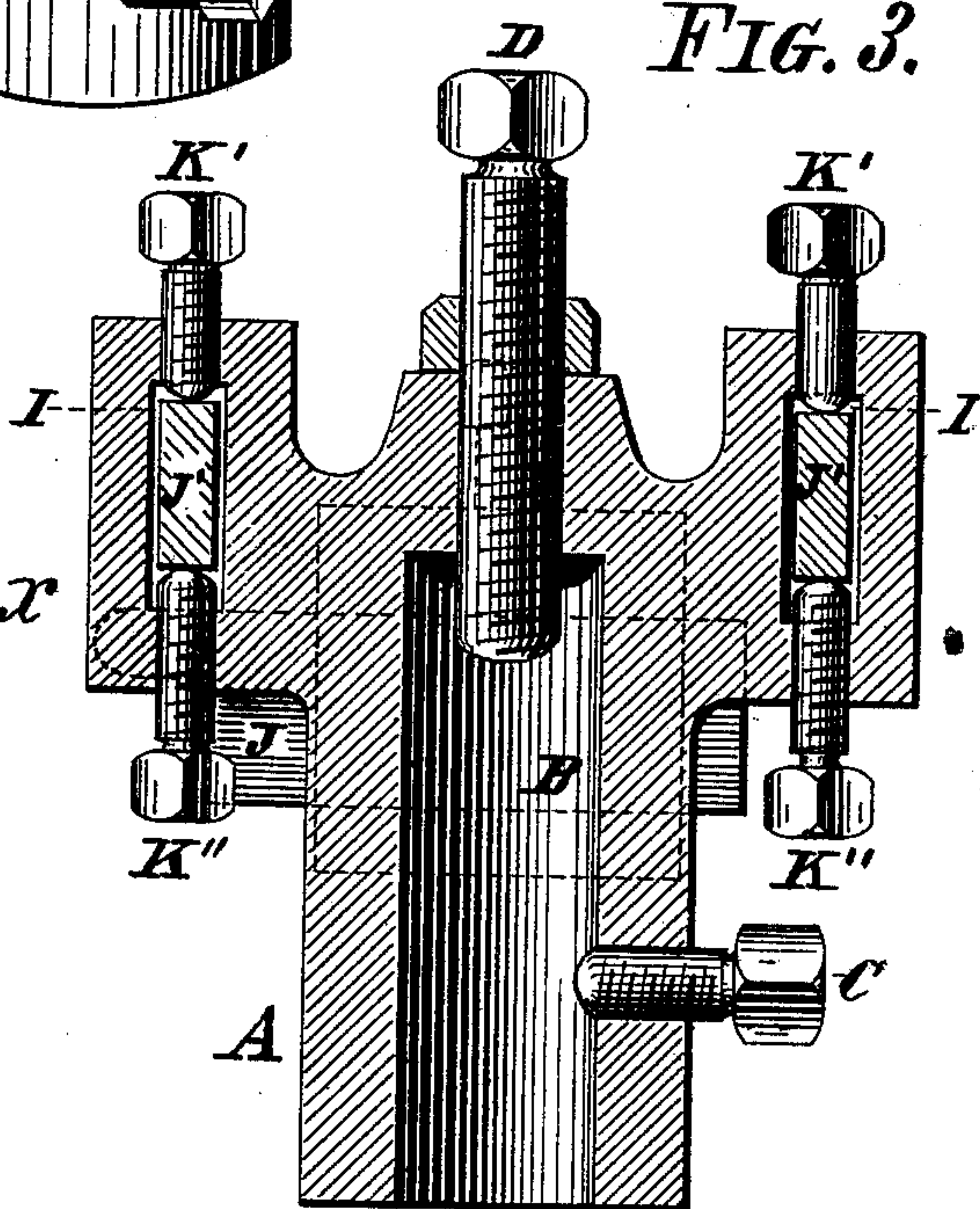


FIG. 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOSIAH ROSS, OF BUFFALO, NEW YORK.

## IMPROVEMENT IN MATCHER-HEADS.

Specification forming part of Letters Patent No. **219,830**, dated September 23, 1879; application filed August 13, 1879.

### *To all whom it may concern:*

Be it known that I, JOSIAH ROSS, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements on Matcher-Heads; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to matcher-heads for wood-working machines; and it consists in the peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claim.

In the drawings hereinbefore mentioned, which serve to illustrate my said invention more fully, Figure 1 is a perspective view of my improved matcher-head. Fig. 2 is a plan, and Fig. 3 a transverse sectional elevation in line *xx* of Fig. 2. Fig. 4 is a plan of the relative position of the cutters, like letters of reference in said figures indicating corresponding parts.

The object of my present invention is the production of a matcher-head for wood-working machinery that shall be very simple in construction, capable of being readily adjusted to different sizes of lumber, and manufactured at a low figure.

To this end I construct my matcher-head of a central hub, A, of proper length, having a bore, B, of a size to fit the head-spindles of the class of machines described, the hub being secured to said spindle by means of a set-screw, C. The upper end of this hub A is slightly contracted at A' and internally screw-threaded to receive an adjusting-screw, D. From the hub A radiate two short arms, E E', having on their ends sockets F F', and from the contracted part A' also radiate two arms, G G', carrying on their respective ends two further sockets, H H', said sockets being pierced with angular apertures I for the reception of cutters J J', held within said sockets by means of set-screws K K' K'', respectively, as hereinafter to be referred to.

The relative position of the two sets of dia-

metrically-opposite sockets F F' and H H' is such that two of them, the sockets F F', are so much lower than the sockets H H' as is necessary to bring the points *j* of said cutters into line when the cutters in the sockets F F' are in their lowest position. These cutters J J' are made "right" and "left"—that is to say, two of them have the points *j* on the upper edge, and the others, J', have them on the lower edge. The object of thus constructing these cutters and arranging them in the sockets, as described, is to enable me to groove or tongue boards of different thickness by raising the cutters J' so that the points *j* of said cutters stand higher than those of the cutters J, the relative positions of said cutters when making the narrowest possible groove being shown in Fig. 4, and the highest position of the cutters J' indicated in dotted lines in said figure.

The cutters J fit in the sockets F F', (a sliding fit,) and they are held in position by the set-screws K pressing these cutters down upon the bottom of said sockets. The slots for the cutters J', however, are made higher than the width of said cutters, so as to enable me to adjust them, as already specified, and for this purpose the sockets have two sets of screws, K' K'', respectively, the former being on the top and the latter on the bottom of said sockets. By means of these set-screws I can raise or depress either end of said cutters J' until they are in the exact position desired for the kind of work to be performed.

When adjusting the cutters J J' the former are first clamped in place and the cutter-head then raised or lowered by means of the adjusting-screw D until they are exactly in their proper position. Now the cutters J J' are adjusted, and the matcher-head ready for work.

It will be readily observed that the matcher-head described is readily produced in the process of casting, and can be finished and fitted at but little expense, and that the cutters J J' are comparatively inexpensive, so that I can manufacture and sell this matcher-head at a much lower figure than those now made, while as far as readiness of adjustment is concerned I do not know of a cutter-head that is equal to it.

Having thus fully described my invention,

I claim as new and desire to secure to me by Letters Patent—

As an improved article of manufacture, a matcher or similar cutter-head having the hub A, with the arms E E' and sockets F F', and part A', with the arms G G' with the sockets H H', said sockets being arranged in relation to one another as described, and the cutters J J', the former being fixed within their respective sockets by the fastening-screw K, and the latter adjustably held by the two sets of adjusting-screws K' K'' bearing upon

the edges of the cutting-blades, the whole being constructed and combined substantially as and for the object specified.

In testimony that I claim the foregoing as my invention I have hereto set my hand and affixed my seal in the presence of two subscribing witnesses.

JOSIAH ROSS. [L. s.]

Attest:

MICHAEL J. STARK,

EMMA A. S. DOPP.