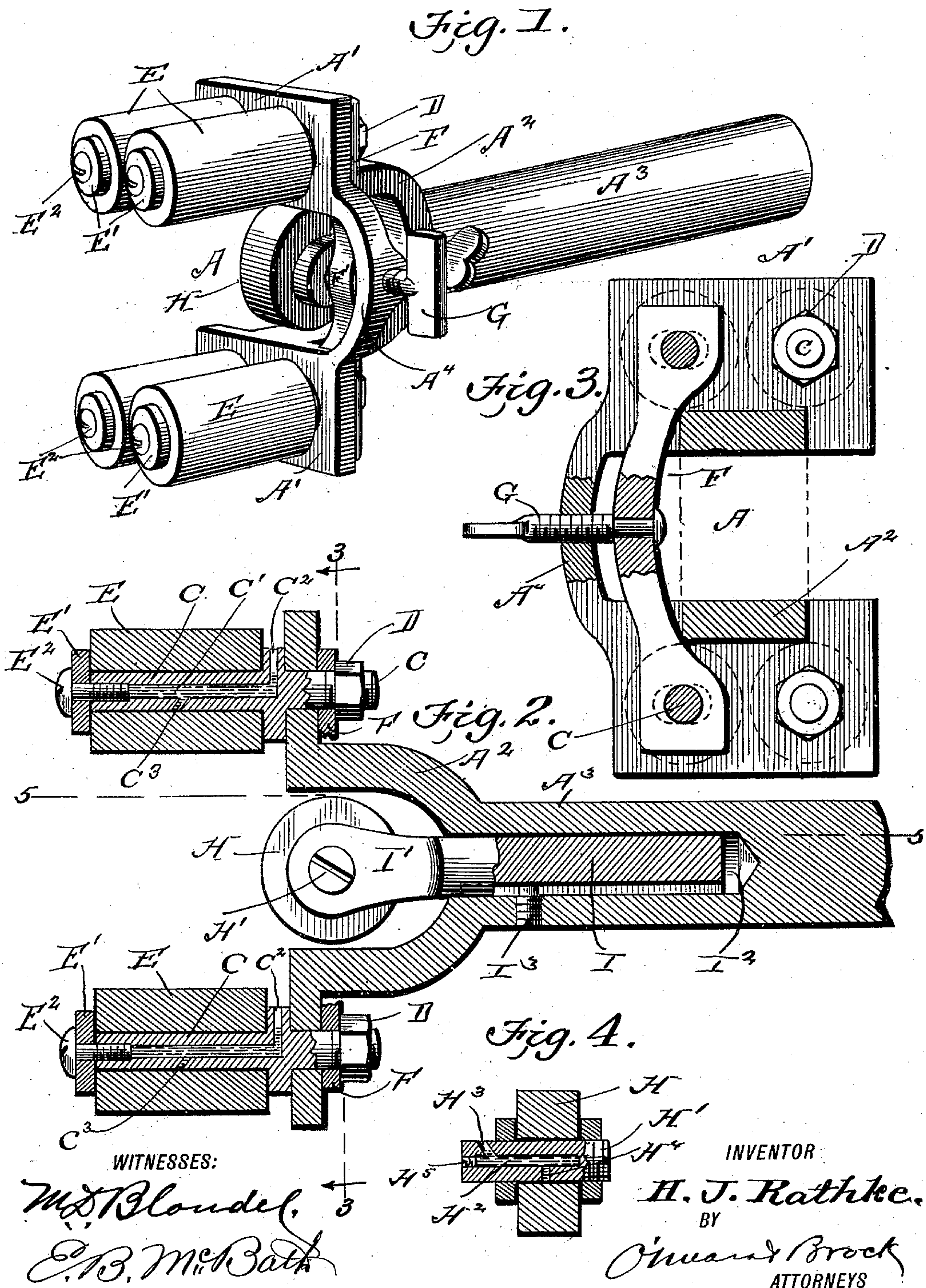


No. 843,097.

PATENTED FEB. 5, 1907.

H. J. RATHKE.
BAND SAW GUIDE.
APPLICATION FILED MAY 16, 1905.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

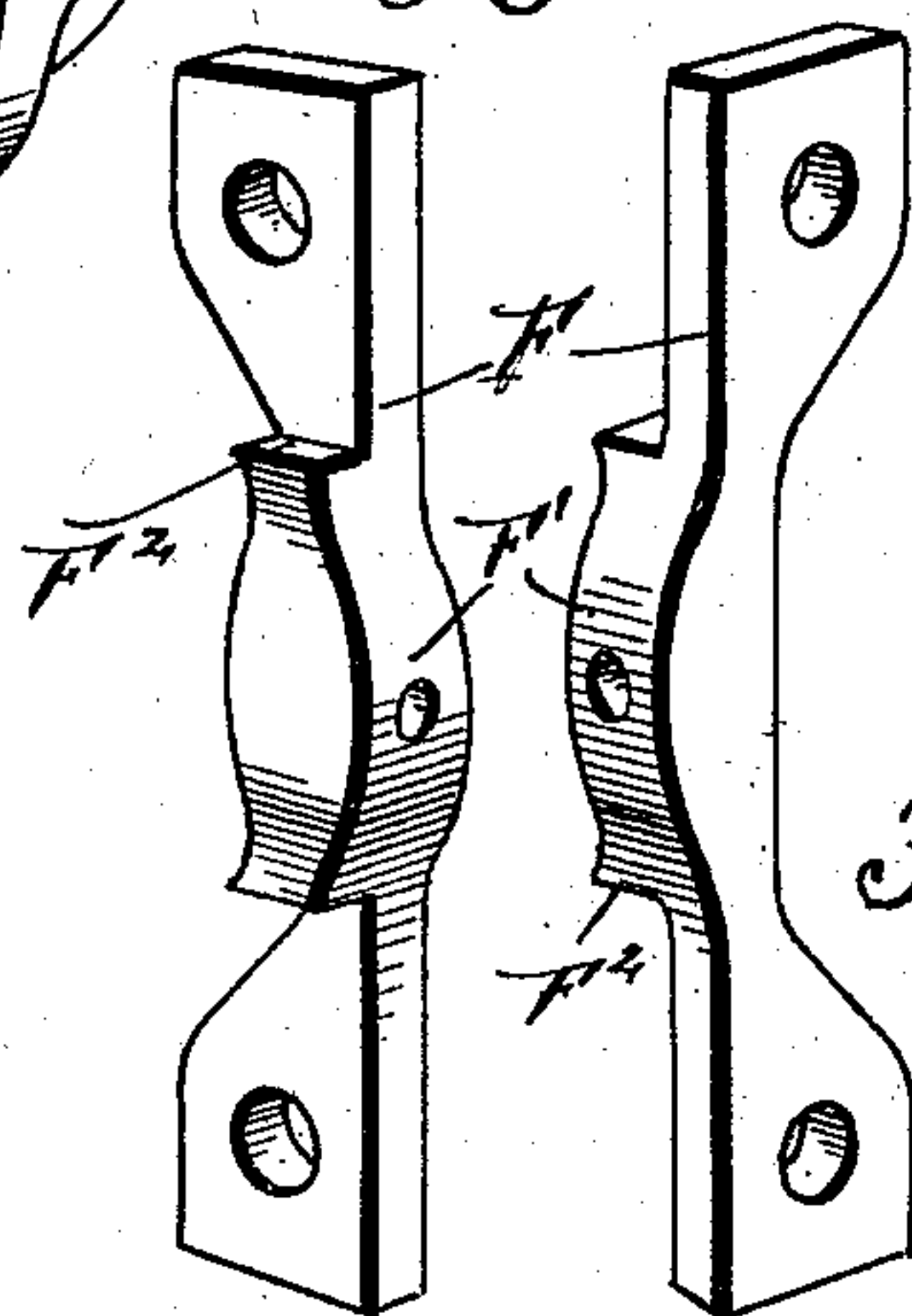
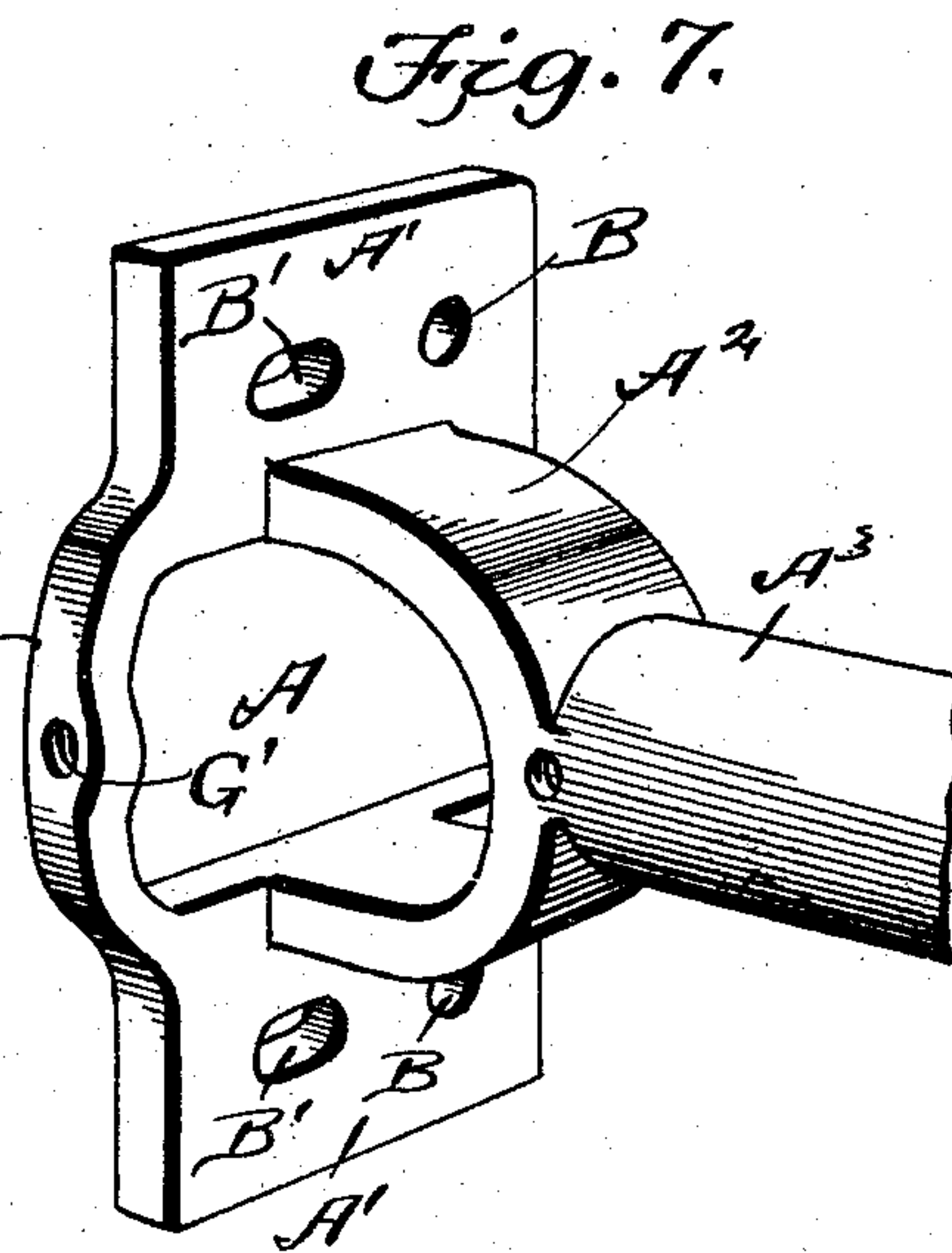
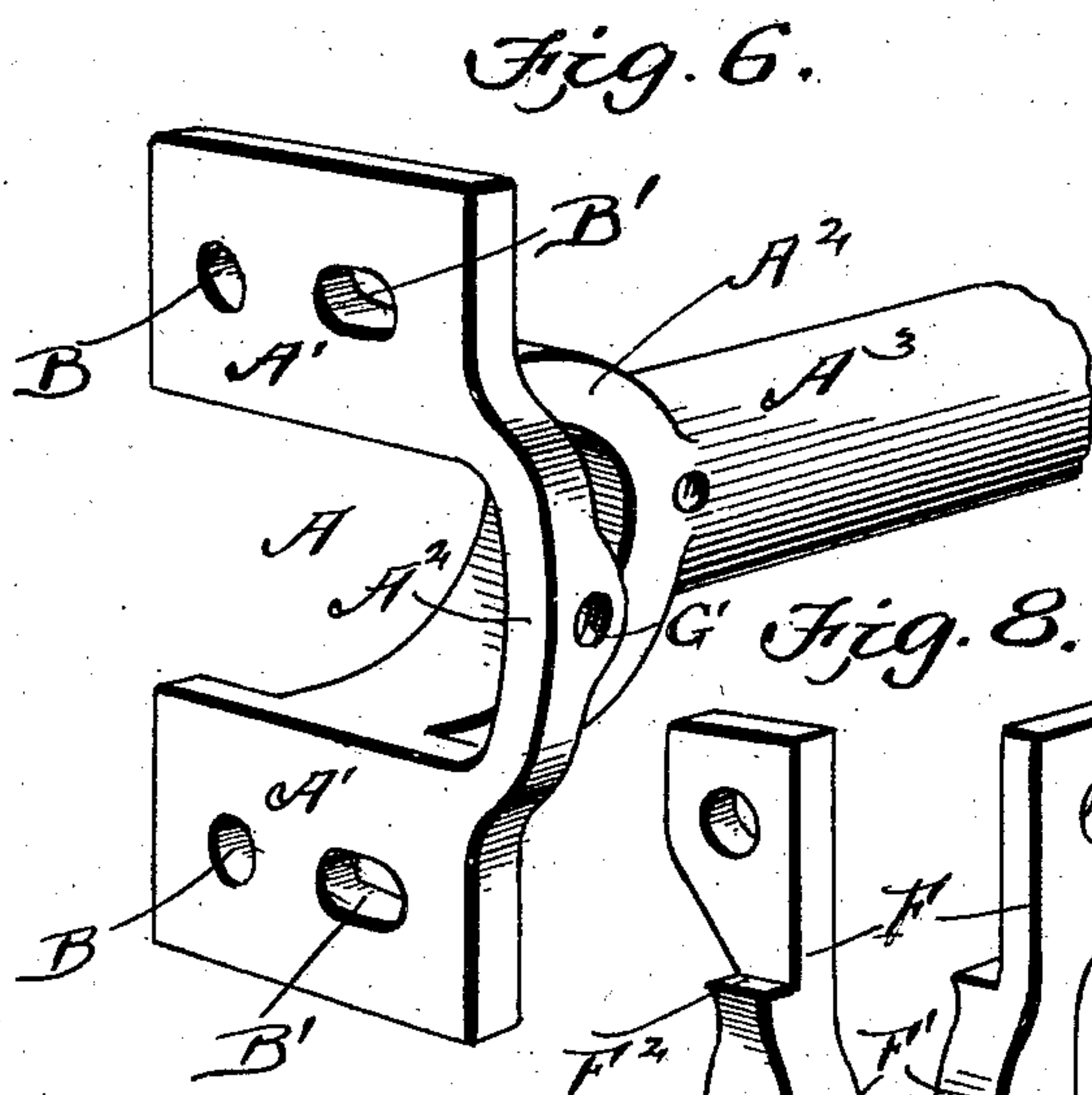
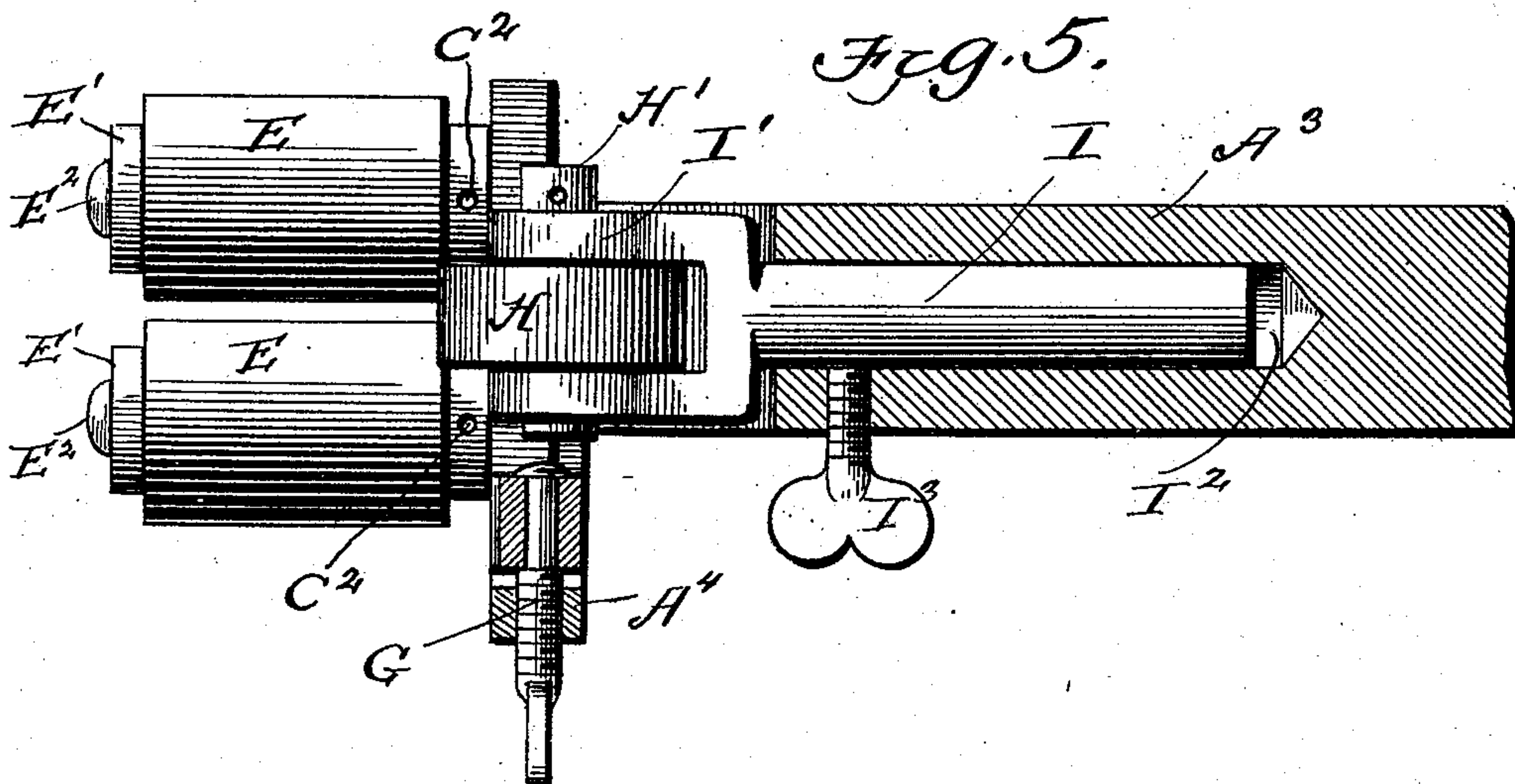


Fig. 9.

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HERMAN J. RATHKE, OF ROCHESTER, NEW YORK.

BAND-SAW GUIDE.

No. 843,097.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed May 16, 1905. Serial No. 260,655.

To all whom it may concern:

Be it known that I, HERMAN J. RATHKE, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in a Band-Saw Guide, of which the following is a specification.

This invention is an improved construction of band-saw guides, the object of the invention being to provide a guide of special construction and capable of adjustment to accommodate different sizes of saws.

Another object of the invention is to provide for the lubrication of the guide-rollers.

With these and certain other objects, which will be apparent as the invention is better understood, the invention consists in the novel features of construction, combination, and arrangement, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view of a band-saw guide constructed in accordance with my invention. Fig. 2 is a vertical sectional view of the same, taken through one side of the guiding-rollers, the bearing-roller being shown in elevation. Fig. 3 is a sectional elevation on the line 3 3 of Fig. 2. Fig. 4 is a detail sectional view showing the journal upon which the bearing-roller is mounted. Fig. 5 is a sectional plan view on the line 5 5 of Fig. 2. Fig. 6 is a detail perspective view of the casting or head to which the guide-rollers are attached. Fig. 7 is a detail perspective view taken from the opposite side. Figs. 8 and 9 are perspective views of the adjustable plate carrying one set of the rollers.

In carrying out my invention I employ a casting or head A, comprising the plates A', connected to the rearwardly-extending yoke A², from which projects the arm A³, and the plates A' are also connected to a laterally-projecting yoke A⁴, all of said part being preferably made integral.

The plates A' have two round holes B in vertical alinement and also two horizontal elongated openings B', also in vertical alinement with each other. Shafts C are fitted into openings B and rigidly secured by means of nuts D, and each shaft C has a guide-roller E mounted thereon, said roller being held in place by means of the cap-plate E' and screw E².

The shaft C has a longitudinal bore C' extending from the forward end nearly to the rear end, at which point it has an upwardly-extending branch C², through which lubricant is led, and about midway its length is a branch C³, by means of which lubricant is conveyed to the roller for the purpose of lubricating the same, as most clearly shown in Fig. 2.

It will of course be understood that each shaft C is constructed in this manner and that all of the guide-rollers are connected to the shaft in exactly the same manner. The shafts which pass through the opening B are stationary; but those passing through the opening B' are adapted to be adjusted so as to cause the rollers to be moved away from or toward the opposing set of rollers in order to accommodate band-saws of varying degrees of thickness, and the shafts which pass through the openings B' have their rear ends connected to a plate F, said plate having an adjusting-screw G swiveled thereto, which screw works through a threaded opening G', produced in the yoke A⁴, and by turning this screw the adjusting-plate F can be moved so as to cause the rollers to be moved horizontally in order to obtain proper adjustment, and it will be noted that the plate F is considerably thickened at the central portion in order to receive the end of the adjusting-screw G, and, furthermore, the shoulders F², bearing upon the opposing edges of the plate A', serve to guide the plate F and prevent the same rocking.

A bearing-roller H rests within the yoke A² and is carried in the bifurcated end I' of the shank I, which shank is horizontally adjustable in the socket I², produced in the arm A³, and the set-screw I³, working in a longitudinal groove in the shank I, prevents the said shank turning. The roller H is mounted upon a shaft H', secured in the bifurcated end of the shank, and this shaft has a longitudinal bore H², having a feed-passage H³ and a discharge-passage H⁴. The open end of the bore H² is closed by means of a plug H⁵. By means of this construction the bearing-roller is also thoroughly lubricated.

It will thus be seen that I provide a simple, strong, and durable construction of band-saw guide and one in which one set of guide-rollers can be quickly and easily adjusted and one in which the bearing-roller can be readily adjusted, thereby enabling the said

guide to be used for various sizes of band-saws, which differ not only in thickness but also in width.

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

1. A band-saw guide comprising a head consisting of two plates connected to two yokes, one of said yokes having an inwardly-extending arm, integral therewith, a bearing-roller carried by a shank horizontally adjustable in the arm, a screw adjustable in the lateral yoke, a plate swiveled to the end of said screw, a pair of guide-rollers connected to said plate, and a pair of guide-rollers connected to the plates of the head, all arranged and adapted to operate as set forth.

2. A band-saw guide comprising an arm having a yoke projecting from one end carrying plates at its ends provided with openings, a yoke connecting said plates provided with a threaded opening, a roller secured in one of the openings in each plate, a shaft carrying a roller projecting through each one of the other openings in said plates secured to a plate, a screw working in the opening in the yoke, swiveled in the plate carrying the rollers and a bearing-roller adjustably mounted in said arm for the purpose described.

3. A saw-guide comprising a hollow arm having a yoke projecting from said arm, a plate secured to each end of said yoke pro-

vided with openings and slots, shafts mounted in the opening in the plates carrying rollers, a yoke connecting said plates having a threaded opening, a screw mounted in the opening having a plate mounted to its end provided with openings, shafts carrying rollers projecting through the slots in the plates secured in the openings in said plate and a shank adjustably mounted in said arm provided with a bearing-roller at its end for the purpose set forth.

4. A saw-guide comprising an arm having a socket at one end provided with a yoke carrying plates at its ends, provided with openings and slots, a laterally-projecting yoke connecting said plates provided with a threaded opening, shafts mounted in the openings in the plate-carrying rollers, a set-screw mounted in the threaded opening in the yoke, a plate provided with openings swiveled on the end of said screw, shafts carrying rollers projecting through the slots in the plates secured in the openings in said plate, a threaded opening leading into the socket of the arm, a set-screw working in said opening and a shank provided with a bifurcated end carrying a bearing-roller mounted in said socket, for the purpose set forth.

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