

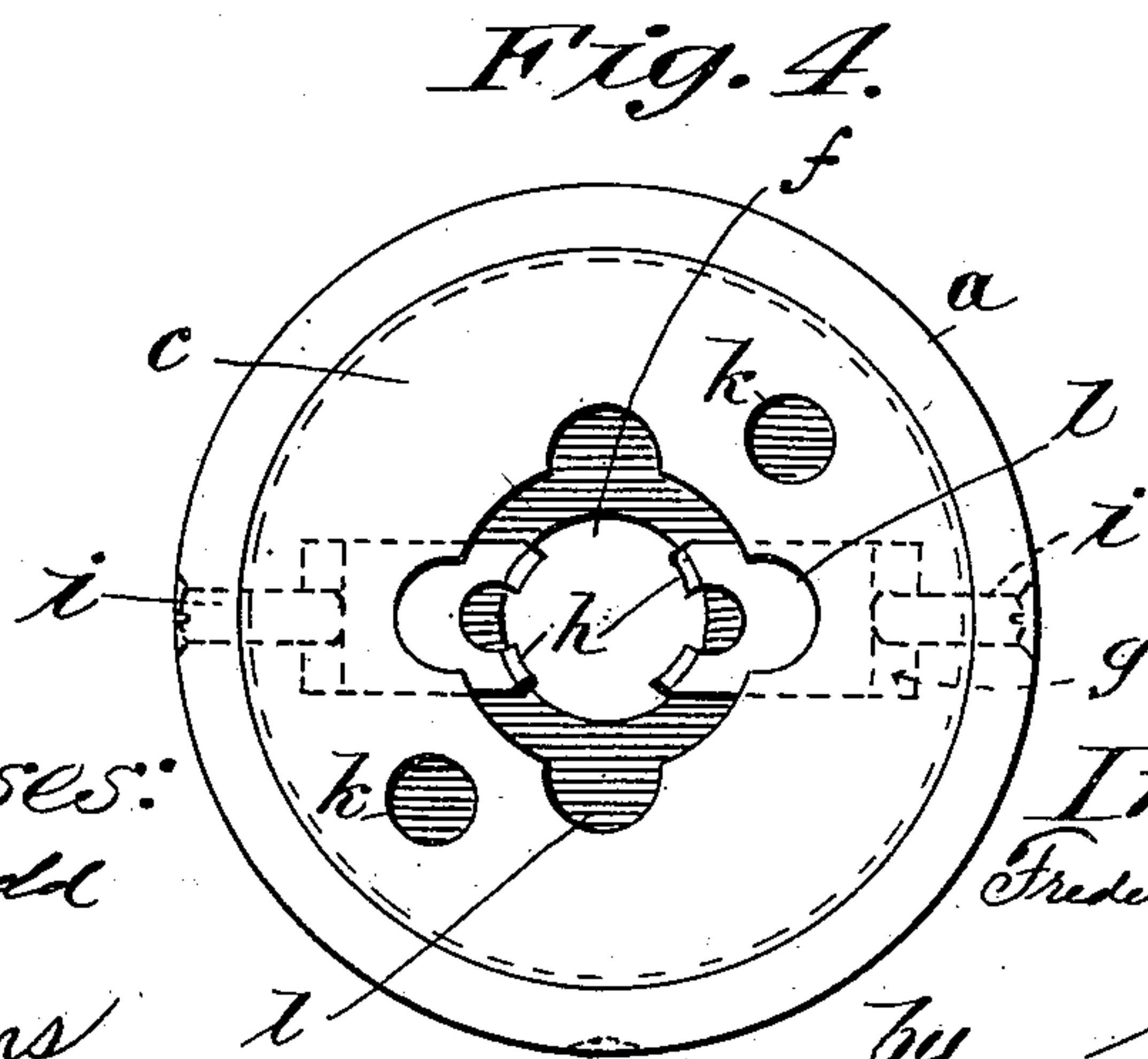
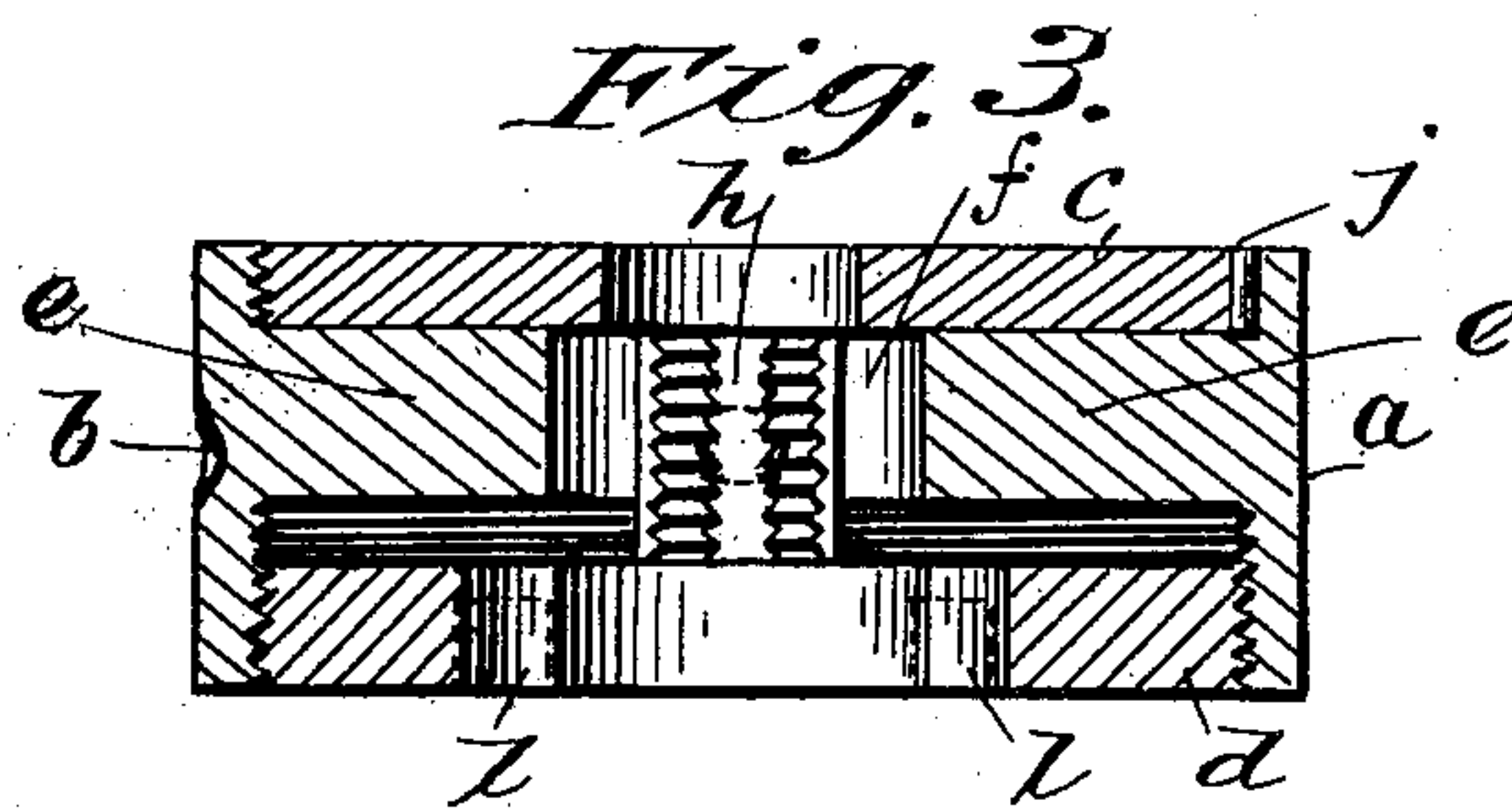
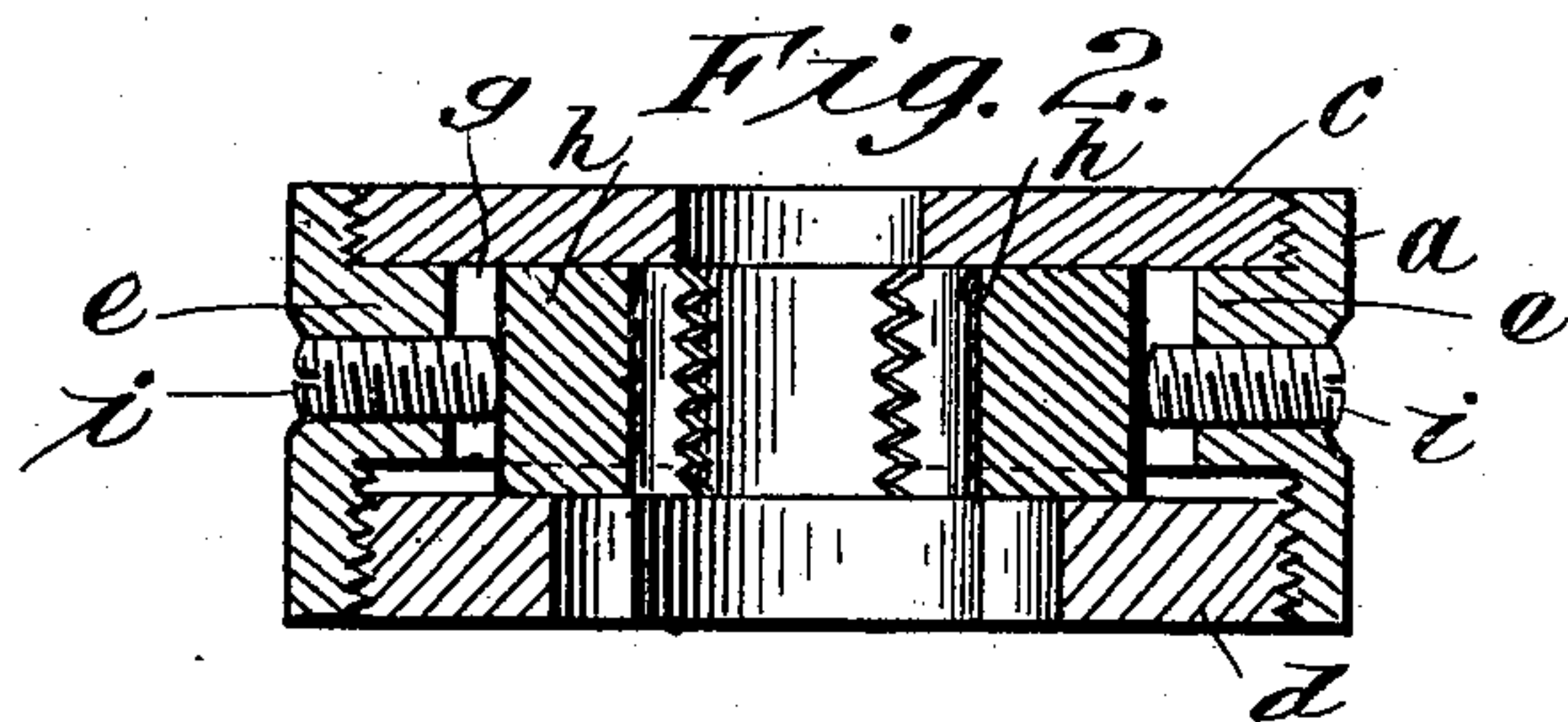
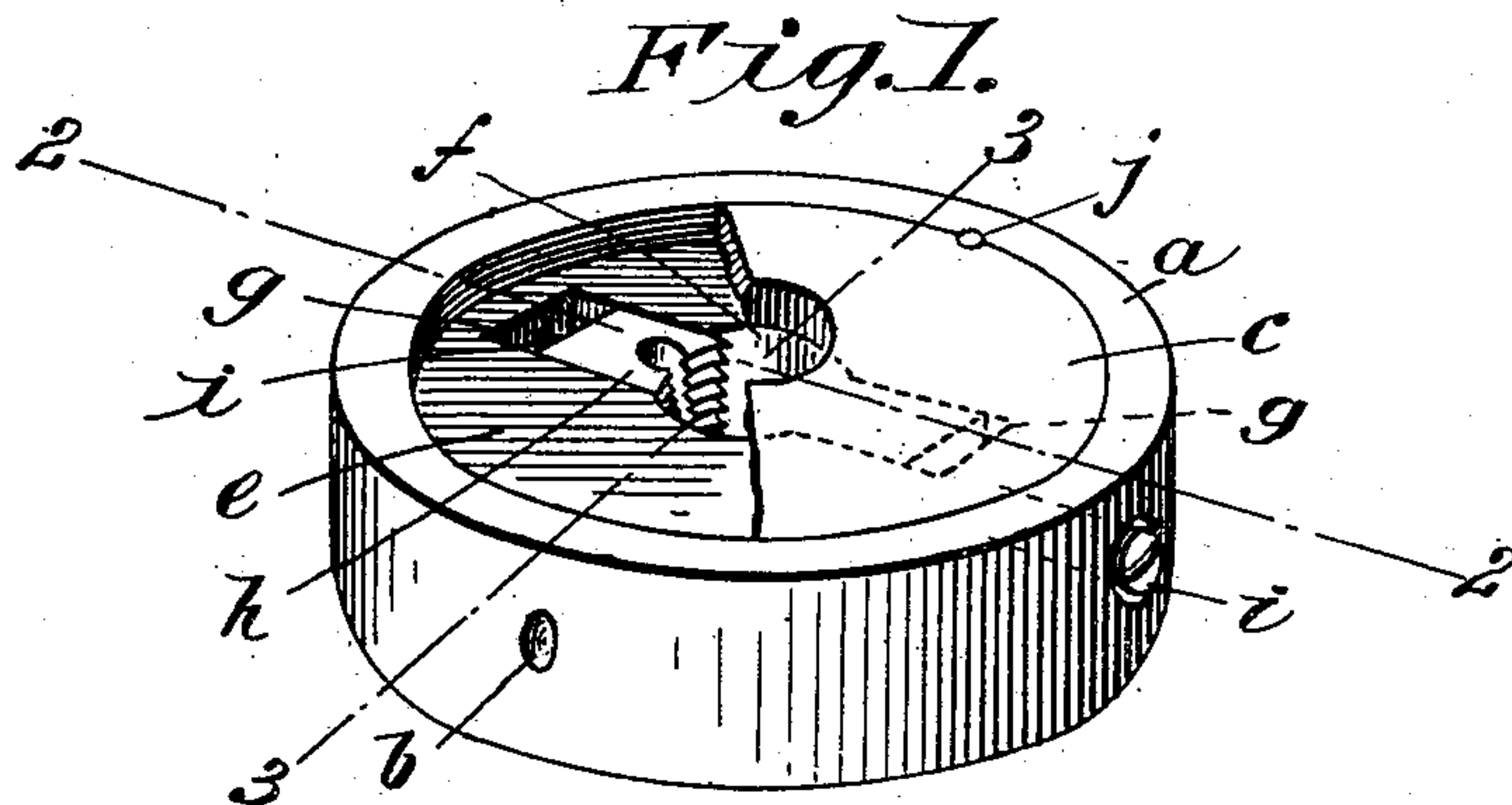
No. 713,064.

Patented Nov. 11, 1902.

F. W. CONANT.
SCREW PLATE.

(Application filed Oct. 31, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

FREDERICK W. CONANT, OF GREENFIELD, MASSACHUSETTS.

SCREW-PLATE.

SPECIFICATION forming part of Letters Patent No. 713,064, dated November 11, 1902.

Application filed October 31, 1901. Serial No. 80,689. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. CONANT, a citizen of the United States of America, residing at Greenfield, in the county of Franklin and State of Massachusetts, have invented new and useful Improvements in Screw-Plates, of which the following is a specification.

This invention relates to screw-plates, the object thereof being the production of a device for this purpose wherein the dies may be provided with accurately-formed slots in which they may be adjusted radially and in which they may be rigidly secured in operative position; and the invention consists in the construction described in the following specification and pointed out clearly in the claims appended thereto.

In the drawings forming part of this application, Figure 1 is a perspective view, partly broken away, showing a screw-plate embodying my invention. Fig. 2 is a sectional elevation on line 2 2, Fig. 1. Fig. 3 is a similar view on line 3 3, Fig. 1; and Fig. 4 is a bottom plan view of the plate.

Referring to the drawings, *a* indicates the body of the screw-plate, which is cylindrical in form and is designed to fit into a socket in the die-stock, in which it may be secured in any suitable manner—as, for instance, by a set-screw passing through the wall of said socket and entering a depression, as at *b*, in the side of the plate. (Shown in Figs. 1 and 3.) The plate *a* is preferably made from a solid block having each end thereof turned out to receive the head *c* in one end and the head *d* in the opposite end. In thus turning out the ends of said block there remains in the plate *a* the solid partition *e*, through which, centrally, there is bored a hole *f*, as usual, for the reception of the work. In said partition *e* the radial die-slots *g* may be cut. These extend clear through the partition *e* from side to side thereof and are radially disposed and oppositely located, and in them the dies *h* are located, the slots being of somewhat greater length than the lengthwise dimension of the dies to permit of the endwise adjustment of the latter to accommodate the tool to operate on work having different diameters. The adjustment of the dies radially is effected in the usual manner by means of screws *i*, located in the wall of the plate *a*

at the ends of the die-slots. These latter having been properly cut the head *c* is fitted into the end of the plate adapted to receive it and is then secured therein. It is immaterial how this head is secured in the plate *a*; but I prefer to screw it down closely against the upper side of the partition *e* and then drill a hole down through the screw-threads and drive a pin *j* therein to lock the head in the plate. By means of this construction a die-slot can be made having three bearing-surfaces in which the die shall fit perfectly and all of the said surfaces be smooth and accurately made, all at small cost compared with the expense of cutting these slots in a solid plate without being able to go through it axially, this being especially true of the smaller sizes.

It is of course understood that the under surface of the head *c* is finished off smoothly and that its upper surface when it is in position in the plate *a* will be flush with the latter. The head *c* thus closes the upper side of the die-slots, the dies when in operative position therein being clamped between this head and the head *d*. The latter is screwed into the opposite end of the plate *a* by a spanner engaging the holes *k* in said head (shown in Fig. 4) or in any other convenient manner which will not obstruct the smooth surface of the bottom of the head. The bottom of the plate *a*, which receives the head *d*, is turned out to a depth greater than the thickness of the head, and the dies are made deeper than the thickness of the partition *e* to the end that the lower edges of the dies may project somewhat below the under side of said partition, whereby when the head *d* is screwed into the lower side of the plate *a* it will bottom on the dies, and thus clamp the latter between it and the head *c*. When said head *d* is screwed up against the dies, the opposite side thereof will ordinarily project beyond the surface of the bottom of the plate *a*, except in some of the large sizes, in which said head may be provided with an axially-extending neck, whereby a longer bearing or guide for the work may be provided.

A great advantage in forming the die-slots accurately and in the provision of dies which are rectangular in cross-section, as shown herein, lies in the fact that the dies may be reversed

in said slot and the work be entered between them either through the head *c* or the head *d*. Where the plate is used in a die-stock, the work would be entered through the head *d*,
5 which being the thicker affords the better bearing therefor; but by reversing the dies the plate may be removed from the die-stock and held in the chuck of the lathe and the work be then entered through the head *c*.
10 The head *d* is provided, as usual, with the recesses *l*, cut in the periphery of the central opening through said head to provide for the proper clearance of the chips.

Having thus described my invention, what
15 I claim, and desire to secure by Letters Patent of the United States, is—

A screw-plate comprising an annular body

having an integral partition located transversely thereof, (between the ends of said body,) whereby two circular cavities are 20 formed in each end of said body, there being a central aperture in said partition, and radially-disposed die-slots extending from said aperture toward the periphery of said body; a head permanently secured in one of said 25 cavities and constituting one boundary of said die-slots, and a second head screw-threaded into the opposite end of the body and adjustable toward and from the opposite side of said partition.

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